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REHABILITATION LITERATURE

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REHABILITATION LITERATURE

Article of the Month

Hypnosis and Rehabilitation

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About the Author . . .

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Rehabilitation and Psychology

HYPNOSIS IS PRIMARILY a psychological phenomenon, induced in the individual through psychological methods and clinically and experimentally most adequately investigated by the use of psychological research technics.[73, 87, 136, 167, 210, 214, 216, 236] The existing and potential contributions of hypnosis to rehabilitation, therefore, can be better understood if a brief overview is first given of the relationship between psychology and rehabilitation. Such a perspective of the relationship between the scientific and applied aspects of psychology and rehabilitation will thus provide us with a basis for the later discussion of the significance of hypnosis for rehabilitation.

Rehabilitation has come to include not only the restoration and extension of the physical and psychological capacities of the person who has suffered losses of ability through trauma of various sorts,[277] but also the "habilitation" problem, *i.e.*, helping individuals who, because of hereditary or congenital or early traumatic events, never had the opportunity to acquire certain skills and functions and therefore need special assistance in the development of their resources. Learning,[56, 82, 225, 270, 271] whether of symbols or skills, becomes a central aspect of the rehabilitation endeavor. Beside the psychotechnical aspects associated with the acquisition of new motor skills, with the modification of long-established patterns of sensory organization, and with the alteration of various types of cognitive activity, there are also many complex learning problems associated with changes of values that may be required by a disability. The individual must often learn to deal with a changed self. He may have to learn how to reconcile many present realities with his past self-image. This learning may have to take place against the background of an attitudinal framework about disability that the person had acquired prior to his injury, a context that influences both his expectations of how others will view him and his expectations about himself.

Psychology is deeply concerned with the motivational problems that are inherent in initiating and maintaining the drive necessary for new learning to take place, as well as in effects of individual differences of pretraumatic personality, experience, and psychobiologic organization upon the rehabilitation effort. There are many social-psychological implications that a disability may have for the individual's adjustment to his family, his work group, and his community. Although not too many clearly established facts exist in these areas, psychology as a discipline and psychologists as professional workers have brought their research methodology and skills to bear on these problems. Dr. Beatrice A. Wright[277] in her report on the Princeton Conference on "Psychology and Rehabilitation" has given an invaluable assessment of the scope and characteristics of the clinical, educational, investigational, and conceptual contributions that psychology offers to rehabilitation and that the natural ecology of rehabilitation offers to psychology.

Rehabilitation involves considerably more than the re-expansion of the individual in his intrapersonal and interpersonal spheres to the goal of a fuller actualization of his potentials. There are problems of physical and social engineering (*e.g.*, the design of prosthetic devices and planning of work settings) and the development of social legislation and social welfare that will advance rehabilitation; there are problems of medical reconstruction and many other kinds of human action that must come under the rubric of rehabilitation. Psychology is most directly concerned with rehabilitation problems related to bringing about such changes in the individual as may help him more readily approach those rehabilitation goals that are potentially accessible to him. Hypnosis, as a psychological investigatory and clinical tool, is of importance to rehabilitation because of its potentials for initiating and facilitating various kinds of psychological change.[73, 96, 137, 269]

The Phenomena of Hypnosis

The folklore and cultural stereotypes about hypnosis are deeply imbedded in the literature and thinking of both lay and professional persons.[81, 210] There seems to be a strong psychological need in both primitive and sophisticated man to find some way of control over the behavior and destiny of other men. The phenomena of hypnosis, with their apparent deviations from the waking states and their dramatic characteristics, have long provided a natural focus for an expression of this need in phantasy and wishful thinking. The many legends about the "Evil Eye," the Svengali story, and the variety of folk tales in which magic spells are cast have contributed to the social attitudes that have delayed the objective consideration of the scientific and practical aspects of hypnosis.[33, 45, 116 128, 275] A comprehensive discussion of the historical roots,[40, 81] the technical procedures,[96, 269] the alterations in behavior, and the theoretical efforts to account for the data of hypnosis[118, 167, 182, 194, 235, 237, 238, 255, 273] might facilitate a more thorough evaluation of the evidence for the contributions of hypnosis to rehabilitation. However, this would fall outside the scope and aims of the present paper. It is hoped that the bibliographic references will provide a guide to both the general literature[27, 80, 269, 276] and to specific areas.[21, 58, 193, 228, 255]

Historical Antecedents. The earliest available records suggest that the induction of trances and curative procedures by the laying on of hands was known long before medical functions were clearly separated from religious rituals.[33, 45, 74] The self-induction of trances through eye fixation upon shiny or bright objects such as flickering candlelight was, and continues to be, used in many religious practices. It was part of the preparation for many of the rituals that make demands of asceticism, self-denial, and self-mutilation upon the individual. Sleep temples were prevalent both in Egypt and Greece—the suggestions given during sleep states to the somnolent health-seeker were undoubtedly a significant factor in many of the cures described on the tablets that grateful and relieved patrons donated to the temple patrons as testimonial offerings to their successful treatment. Aesculapius was reputed[38, 107] to be able to relieve pain by stroking affected areas with his hands; he was credited with being able to induce long and refreshing sleep. Religious and secular literature of the early Christian period is replete with references to the healing powers inherent in the hands of holy personages. Later history records incidents about the "divine" touch of kings and emperors.[107]

Dr. Conn[45] points out that it was left to Franz Anton Mesmer to bring together the healing touch, the curative effect of prolonged sleep, and the induced trance state into a new healing art that sought its scientific rationale in the theories of that time about magnetism and the universal forces. Long before the discovery of chloroform and ether, well-documented and carefully observed major surgery had been performed using Mesmer's trance-inducing technics. For instance, Dr. Jules Cloquet in 1829 amputated a cancerous breast while the patient calmly remained in the mesmeric trance that Dr. Chapelain had induced. In India, Dr. James Esdaile[72] did much extensive major and minor surgery from 1845 until 1851, using mesmeric trances. The Indian Medical Commissions that observed and examined his surgical work were impressed not only with the anesthesia, but also with the lowered blood loss, fewer postoperative infections, and distinctly lowered mortality rates. It should be noted that much medical opposition was expressed against Esdaile, Elliotson, and others, often with serious consequences for the proponents of mesmeric methods (rejection of papers by

editors of professional journals and removal from hospital staffs). The criticism was not because their surgery was unsuccessful or the hypnotic procedure distressing to the patients, but rather because the removal of pain was regarded as being unnatural, it might interfere with the healing processes, and it was not proper for physicians to tamper with man's soul.[27]

The modern history of hypnotism may be said to have been initiated by the observations of the Manchester surgeon, Dr. James Braid,[72] who rechristened the phenomenon "hypnotism" and emphasized the psychological aspects of these responses.[116, 128, 275]

Bernheim,[16] Janet,[107] and Breuer and Freud[29, 117, 190, 196, 266] were but a few of the clinicians and investigators at the beginning of the 20th century whose work stressed the psychiatric and psychotherapeutic use of hypnosis. Even the briefest of historical reviews would have to note the marked shift toward scientific research, both in clinical and laboratory work, which has characterized hypnosis in the contemporary period. This trend has been influenced by and contributed to by such people as Hull,[104] Erickson,[66] LeCron,[142] Schneck,[214] Wolberg,[276] and many others concerned with the clarification of the potentials and limits of hypnosis as a psychological tool.

Behavioral Manifestations During Hypnosis. Therapeutic agents, whether they are chemical, surgical, or psychological in nature, may be categorized in terms of their effect upon function in the organism. Thus we may speak of those agents which, in varying degrees, inhibit or decrease function, those that release function (*i.e.,* either inhibit inhibitors or make function possible by supplying missing factors), those that stimulate function beyond the normal levels (either in intensity or duration), and those that distort or modify function from its typical manifestations. Psychologically, these different kinds of change in function can be observed only when they may manifest themselves by alterations of sensorimotor, cognitive, emotional, social, and other behaviors.

The subject in hypnosis seems to be able to utilize more effectively the suggestions offered to him by the therapist and therefore to respond with far greater changes in function than are usually available to him in most waking situations.[73, 136, 160, 167, 210, 214, 216, 236] There are many factors that influence the readiness of an individual to go into hypnosis, the "depth" he can achieve, and the range of phenomena and posthypnotic effects he can experience (*e.g.,* personality aspects, interpersonal relationships, situational factors).[12, 13, 160, 273] The discussion of induction procedures, hypnotic phenomena, and therapeutic technics will have to be understood in a general context, without the implication that they are necessarily relevant for each person who goes into hypnosis.

There are many methods and problems associated with both the initial and subsequent inductions of hypnosis.[37, 63, 96, 124, 129, 166, 229, 267] However, four psychological conditions are usually associated with most induction methods: (1) reduced sensory input (quiet setting, decreased light and sound, reinstatement of conditions associated with relaxation and sleep); (2) fixation of attention (positive focusing on object or thought to further channel stimulus receptivity); (3) self-awareness (heightened attention to own body sensations, feelings, and thoughts with lowered corrective feedback of extradermal environment); and (4) heightened subject-operator security relationship (decreased muscle tension, "psychic incorporation" of operator into self, and decrease in vigilance with operator interposed between self and environment).

The therapeutic use of hypnosis is not restricted to or dependent upon any particular phase of the hypnotic reaction. The task of the investigator of hypnotic behavior is complicated by the fact that a given patient may manifest only a few or none of the characteristic behaviors associated with a particular "depth" of hypnosis, yet be able to carry out the quantitative and qualitative therapeutic work most often considered typical of that depth. Similarly, a patient may be able to display some or most of the phenomena associated with a deep hypnotic involvement and yet be extremely limited in the therapeutic activity he can accomplish. Although there are many theoretical, clinical, and research difficulties in the concept "depth" or "degree" of hypnosis,[51, 54, 124, 133, 160, 181, 215, 238] general agreement exists that some gross differentiation can be made as to the extent of hypnotic involvement. Several efforts have been made (Davis and Husband, [49] Friedlander and Sarbin,[80] LeCron and Bordeaux [145, 146]) to formulate the characteristics of the different levels. The composite table (see table) has drawn upon these various sources to illustrate some of the criteria that have been used to identify different "depths" of hypnosis. It points out some of the changes in function that might be utilized therapeutically.[14, 21, 22, 60, 61, 62, 111, 125, 152, 185, 193, 223, 224, 228, 251, 255, 257]

The clinical and experimental psychological evidence dealing with the phenomena of hypnosis noted in the table are more fully reported and referenced in such sources as LeCron,[142] Weitzenhoffer,[269] Wolberg,[276] and Young [278] and the psychophysiological aspects are presented in the reviews by Gorton,[84] Crasilneck and Hall,[46] and Sarbin[193] as well as articles on particular areas of physiological reactivity under hypnosis.[14, 21, 22, 60, 61, 62, 94, 111, 136, 152, 165, 185, 223, 224, 228, 251, 253, 255, 257] The implications of the hypnotherapeutic utilization of some of the hypnotic phenomena for some problems in rehabilitation will be discussed in a later section.

Some Hypnotherapeutic Technics

Most, if not all, of the psychological technics available to the clinician for therapeutic use with the patient in

Behavioral Changes Generally Associated as Spontaneous or Inducible with Different Degrees of Hypnosis

AREA OF FUNCTION	DEGREE OR DEPTH OF HYPNOSIS		
	Induction—Early	Light—Moderate	Deep
Sensory	Warmth, tingling, decreased awareness, sleepiness, floating, swelling.	Decreased responsiveness to light, sound, smell, touch. Partial analgesias. Some sensory illusions.	Complete anesthesias and analgesias. Positive and negative sensory hallucinations.
Motor	Relaxation, muscle atonicity, rigidities. Decreased spontaneity of movement. Eyelid fluttering.	Heaviness of eyelids; motor catalepsies; levitations.	Detachment of motor function (*e.g.*, automatic writing, eye muscle incoordination). Facilitation smooth muscle reactivity (vascular, bronchial, intestinal). Positive and negative motor hallucinations.
Complex Processes	Distanciation, mild dissociation. Vivid imagery.	Hypermnesia; dream production; time distortions; partial posthypnotic amnesias and compulsions.	Age regressions and revivifications; marked time distortions; dream induction, somnambulism; partial to complete posthypnotic amnesias; more complex and extended posthypnotic behavior.
Emotional	Mild depersonalization, apathy, excitement.	Induction and re-experiencing of emotional states. Rapport with operator.	Abreaction, catharsis, deep emotional reactions (both re-experienced or induced); multiple personality; marked depersonalization. Posthypnotic emotional reaction.
Physiological	Rapid pulse and respiration; shallow breathing; flushing.	Slower pulse, autonomic nervous system reactivity (altered salivation, hormonal secretion, etc.), EEG changes, reflex changes.	EEG changes, reflex alterations, gastric secretions, respiratory rate, oxygen saturation.

the waking state can be utilized with some patients in hypnosis. Psychotherapy under hypnosis[28, 30, 55, 70, 118, 119, 163, 172, 173, 188, 204, 246, 276] can make use of persuasion,[231] reassurance,[231] free association,[204] dream analysis,[1, 108, 199, 246] psychoanalytic interpretation, [20, 78, 116, 188, 196, 259, 261, 276] direct suggestion,[123] abreaction,[231] and almost any other relevant psychological method.[24, 30, 68, 119, 161, 187, 198, 200, 250] However, under hypnosis, these technics can often be used with much greater therapeutic effectiveness in behalf of the patient because of (*a*) the heightened intensity of the interpersonal relationship between the client and the therapist, (*b*) the greater readiness on the part of the patient to utilize the therapeutic offerings, and (*c*) the characteristics of the hypnotic experience, which may enhance the patient's feelings of control and accomplishment (*e.g.*, posthypnotic amnesia).

In addition to the above, there are some procedures of psychotherapeutic importance that become most readily available only under hypnosis. Whereas in the waking state the therapeutic work depends upon the dreams that the patient brings into the situation, under hypnosis it is possible to induce dreams[172, 204, 217] in order to clarify the patient's symbolic language as well as to help resolve some of the difficulties he might be experiencing in his therapy. The hypermnestic phenomena elicited during hypnosis permit the use of age regression and age revivification procedures [17, 20, 53, 129, 165, 212] both to recover significant memories and experiences of the past and, under the conditions of hypnosis, to facilitate psychological reinterpretation of these events and their more adequate reintegration into the present life orientation of the patient. The distortion of time, which can be induced under hypnosis [10, 68] (*e.g.*, time projection into the future), may enable the patient to provide the therapist with cues to guide the therapeutic program.[17] Induced conflicts[52, 65, 110, 256] may help the patient gain understanding of his characteristic coping behaviors and may help him to differentiate between appropriate reactions and those that are self-defeating. Automatic writing,[142, 195] finger movement questioning,[143] emotional intensifications,[188] and hallucinatory behavior[208] are a few of the many special methods by which subconscious material may be brought into greater therapeutic accessibility.

Autohypnotic training can be used to strengthen the ego structure of patients through extension of their self-confidence and self-control. [85, 93, 126, 192, 217, 244] It frequently provides the patient with a means of interrupting anxiety-tension cycles, thereby motivating him toward continuation in therapy.[90, 105] There are many other creative utilizations of the hypnotic phenomena in behalf of psychotherapy such as re-education under hypnosis, [70, 234, 259] wherein the patient can try out new experiences

while in hypnosis via time projection or fantasied therapist interviews,[209] which have been clinically demonstrated or have been proposed for clinical and experimental trial.

The alterations of sensorimotor and other physiological functioning that can be brought about in many patients under hypnosis may be enhanced by various specialized technics. Wetterstrand[27] concentrated on the sleeplike behavior experienced in hypnosis to develop a technic of prolonged hypnotic sleep that sometimes extended from two to four weeks. Patients were able to carry out their normal routines of eating and body care without waking from hypnosis. No adjunct medication was needed to maintain this state but there was need for occasional hypnotic reinforcement. Wetterstrand reported this method to be an effective technic for treatment in several cases of epilepsy, in which there were no relapses even after several years. This technic was successfully used by him in the management of withdrawal reactions of morphine addicts. There is continued interest in the possibilities of this technic[35] for conditions and diseases such as tuberculosis and coronary thrombosis where a prolonged period of rest, minimum anxiety, and a freedom from heavy chemical sedation would have important therapeutic advantages. Muscle relaxation, changes in the perception of pain, induction of appetite, and modification of gastrointestinal motility through direct suggestion or through indirect psychological technics have clear importance for many medical and surgical conditions. The use of hypnotic technics, either alone or with other agents, to influence these reactions would seem to favor better therapeutic outcomes.

Rehabilitation and Hypnosis

Rehabilitation not only includes the diagnosis, treatment, and social readjustment of the individual but also has a broad prophylactic aspect. It is necessary both to reduce the potential of injury to the individual and to modify the social environment to facilitate re-entry of the disabled into community living.

Hypnosis does not offer any especially relevant contribution to some of these aspects of rehabilitation. However, in areas such as differential diagnosis, therapy, motivation, and re-education, hypnosis can enchance the already available psychological technics. Hypnosis offers a unique contribution to some problems in the rehabilitation effort. The remainder of this section will be given over to citing some illustrations of how the use of hypnosis may help achieve rehabilitation goals.

Anesthesiology. The development of modern chemoanesthesia broadly extended the range and the type of surgical procedures possible. However, in certain conditions (*e.g.,* idiosyncratic sensitivities), it is best to avoid some of the complicating problems of a chemical agent, or it may be highly important not to use such an agent. Marmer[158] has recently reported a case of aortic surgery in a young child where the use of an hypnoanesthetic technic offered the singular advantage of a constant check on the child's cerebrovascular status through conversation carried on during the operation.

The amount of time required has limited the use of hypnosis as the sole anesthetic agent. Betcher,[18] Wallace,[265] and others[157, 179] have pointed out that hypnotic technics need not be limited to the surgery itself. They found hypnotherapy very useful in preparing children and adults for surgery. It reduces anxiety, chemoanesthetic induction reactions (*e.g.,* laryngospasm), and the amount of chemical agent needed during the operation to maintain adequate surgical conditions. Many anesthesiologists combine the hypnotic and chemical technics in an attempt to maintain some psychological contact with their patients throughout surgery and also reiterate posthypnotic suggestions relating to the postanesthetic and recovery phases.[83, 86, 139, 159] General clinical opinion seems to be that the postoperative experiences of these patients are smoother, with fewer physiological or psychological complications.

Dental surgeons have found hypnoanesthesia to be a valuable motivational and technical adjunct, especially where extensive reconstructive oral rehabilitation is involved.[6, 7, 33, 47, 157, 248] The relative facility of hypnosis in developing analgesia in the oral area has led to its broad application to dental problems and the development of hypnodontics.[7, 8, 31, 67, 97, 105, 106, 140, 171, 184, 233, 249]

Internal Medicine. Psychological stress often accompanies illness and, in many instances, may be a precipitating or an exacerbating factor. Wherever psychotherapy has been demonstrated to be important in the treatment regimen, hypnotherapy has a potential contribution.[114, 186, 230]

The control of pain is a central issue in the treatment of illness because of its obvious importance in the relief of human suffering and because of the complex cycle of body events associated with pain. The danger of shock, with its threat of circulatory collapse, the muscle guarding, which may aggravate pain and may create secondary problems through immobilization, and the complications attending long-term use of potent analgesics are but a few of the accompaniments of severe pain. Crasilneck and others[48] demonstrated how patients with burns can be helped with hypnosis used to reduce the stresses associated with changing of wound dressings and skin grafting procedures and also how hypnosis can stimulate appetite[48, 79] so that significant intake increases can compensate for massive protein losses through exudation at the burn sites. Both of these reactions did much to support the total healing process.

Butler,[33] Rosen,[189] and Kirkner[112] have shown how hypnosis can be used in cases of severe, chronic pain such as that associated with terminal cancer. Although pain can be temporarily relieved and pain-free periods

extended through teaching the patient autohypnosis, frequent hypnotic sessions between the patient and the therapist are still needed. Even though such procedures are time-consuming and emotionally and physically demanding upon the therapist, the patient is relieved from the confused and comatose state associated with continuous heavy sedation and can become relatively pain-free. The degree of analgesia achieved is closely related to the depth of hypnosis the patient is able to achieve. Nerve root pain, causalgias, tic douloureux, and many varieties of gastrointestinal pain have been similarly helped through hypnotherapy.[95, 112, 123, 130, 188, 192, 243]

Other applications. Multiple sclerosis is characterized by neurological and psychological "scars." The personality response to the disease process often is related to decreased utilization of potential psychomotor function. Shapiro and Kline[232] gave suggestions for physical and mental relaxation, as well as for improved motor performance, to a 33-year-old male patient with multiple sclerosis. At the patient's request, no psychotherapeutic exploration was done. Organic lesions were not altered, but the increased sense of well-being and self-confidence seemed to help the patient to better utilize his remaining motor abilities and to lead him to a more reality-oriented consideration of his illness. The authors' stress on the importance of autohypnosis in promoting this patient's feelings of self-control is also evident in Ambrose's report[3] on his hypnotic treatment of six patients with multiple sclerosis. The enhancement of the patient's feelings of control over his organism, facilitated by autohypnotic training, was a central focus of the hypnotherapy.

Higley,[100] Shires,[234] and Chappell[34] used various hypnotic technics (*e.g.*, age regression to a period of effective neuromuscular functioning, posthypnotic suggestions for improved performance, exercise during the hypnotic state of the motor actions) for remotivating and retraining patients with neuromuscular impairments. Modification of the patient's attitudes about his disability and the increased readiness to participate, which took place under hypnosis, seemed to help the patient make progress in his rehabilitation.

There has been no effort to comprehensively review the ways in which hypnotherapy has been and might be used in psychiatry, speech re-education, plastic surgery (*e.g.*, posture maintenance during pedicle transplant[109]), physical medicine, and many other disciplines that have important contributions to make to rehabilitation. Rehabilitation workers should seriously consider what hypnosis, where the psychological knowledge, clinical applications, and research methods are relevant, has to offer as a potent psychological phenomenon with many unexplored potentials.

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Rehabilitation of the Hand

By C. B. Wynn Parry, D.M., D. Phys. Med.
with
N. R. Smythe, M.A.O.T.
and
L. E. Baker, N.C.S.P.

Published by Butterworth and Company (Publishers), Ltd., 88 Kingsway, London W.C.2, England. 1958. 273 (17) p. illus., figs., tabs. $9.00.

Reviewed by Herman J. Flax, M.D.

About the Authors . . .
Dr. Parry is a specialist in physical medicine with the Royal Air Force. Mr. Smythe is chairman of the Occupational Therapy Association and head occupational therapist at the Medical Rehabilitation Unit, Royal Air Force, Chessington, where Dr. Baker is superintendent physiotherapist.

About the Reviewer . . .
Dr. Flax is acting chief of physical medicine and rehabilitation of the San Patricio V.A. Hospital and chief of those services at Clinica Dr. E. Fernandez-Garcia (Tuberculosis) Hospital and at Clinica Dr. M. Julia (Neuropsychiatric) Hospital. Dr. Flax is also in private practice and a consultant for the Puerto Rico Office of Vocational Rehabilitation and for various hospitals. Dr. Flax received his M.D. degree from the Medical College of Virginia in 1940 and his M.S. in Medical Science in 1952 from the University of Pennsylvania, his thesis being on "Physical Medicine Treatment of Hand Injuries." He is assistant clinical professor of physical medicine and rehabilitation in the surgical service of the University of Puerto Rico School of Medicine and in charge of the residency program in physical medicine and rehabilitation at the San Patricio V.A. Hospital. He is the author of about 40 medical papers.

THERE ARE FEW books in physical medicine and rehabilitation by authors who can write from such vast experience as do Dr. C. B. Wynn Parry and collaborators in *Rehabilitation of the Hand*. Dr. Parry is ably assisted by N. R. Smythe and L. E. Baker, both of the Royal Air Force Medical Rehabilitation Unit at Chessington, England. Dr. D. A. Brewerton added a chapter on "The Rheumatoid Hand and Its Management" and Dr. Donal Brooks on "Reconstruction of the Injured Hand."

To appreciate the comments, observations, and, especially, the opinions concerning prognosis in hand injuries, it is important to understand the nature and organization of the great rehabilitation centers in Great Britain, such as Chessington, where Dr. Wynn Parry treated the patients described in his book. Here, he has complete and absolute control of the rehabilitation program and can order three or four periods of physical therapy daily, as well as several periods of occupational therapy and remedial exercises. It is unfair to compare his excellent results with those of units giving scarcely an hour's treatment, at the most, three times weekly. The latter cannot be considered sufficient therapy for hand injuries, especially in those who must return to work as quickly as possible. There are few centers that can provide the advantage of motivating their patients for rehabilitation 24 hours daily. This, in great part, is the secret of the success of the practice of rehabilitation of the hand as advocated by the Medical Rehabilitation Unit at Chessington.

There are 10 chapters making up the 273 pages of this volume. The first reviews the "Functional Anatomy of the Hand." As the authors state, "The treatment of hand injuries involves the re-education of muscle action, development of muscle power and increase in joint function. As

intelligent treatment depends on a sound knowledge of the anatomy and function of the hand, this Chapter is concerned with the anatomy of the hand and its function." Of particular interest is the full discussion on the types of grip.

In Chapter Two, "Injuries to Tendons," first flexor tendon and then extensor tendon injuries are presented. Methods of tendon repair, the nature and frequency of complications to explain the poor results in some patients, and the precise rehabilitation regime from the immediate postoperative period to successful return to complete function and to work is outlined step by step.

The third chapter presents an interpretation of "Peripheral Nerve Injuries." Diagnosis of individual and mixed nerve injuries, methods of correcting for loss of muscle power with functional splints, and a progressive program of physical, occupational, exercise, and game therapy are minutiously described.

The next chapter, "Electrodiagnosis," briefly touches the basic physiology of nerve and muscle and elaborates on the technics and interpretation of the strength-duration curve and electromyography in localizing lesions of the lower-motor neuron and as diagnostic measures of nerve regeneration. This is as exhaustive and complete an interpretation, especially of these two methods of electrodiagnosis, as will be found anywhere.

Chapter Five discusses the causes and the treatment of "The Stiff Hand." Different types of fractures, soft-tissue injuries, and joint, vascular, and even conditions with neurological causes, such as hemiplegia as an example of the spastic hand, are exhaustively treated.

Doctor Brewerton's chapter on "The Rheumatoid Hand and Its Management" emphasizes the need to individualize the treatment for each patient. A combination of rest and motion is advocated to prevent loss of function of inflamed joints. The splints used for rest reach from the finger tips to the middle of the forearm and prevent all motion. "Lively" (functional) splints are not to be used in such patients during activity. Splints are used, if at all, to relieve pain and only when the joints are severely inflamed, and then only for short periods during the day and at night. This point is stressed, because splints make the hand "useless while being worn." The reviewer has seen many wrists and fingers stiffened permanently through the injudicious use of molded, plaster-of-Paris splints kept on for days to "rest" the joints over the acute inflammatory stage. The excuse for this poor treatment is to relieve pain. The author is quite descriptive of the various joint and soft-tissue changes and deformities resulting in the rheumatoid hand, but he is somewhat vague in his prescription of physical medicine and rehabilitation measures. This is in marked contrast to the other chapters with explicit therapeutic methods described to the minutest detail.

There is an exceedingly interesting chapter on "Upper Limb Weakness," which speaks of shoulder and elbow affections and principles of muscle re-education to promote the maximum use of the hand. When adequate function of the upper extremity cannot be obtained, the use of "lively" splints is proposed. A number of functional braces are described completely, including construction as well as use.

"Techniques of Treatment," Chapter Eight, reads like an elementary lecture on the modalities of physical medicine, although the section on physical therapy "deals with some specific points concerning the techniques of treatment that are considered to be of particular importance." The discussion on occupational therapy is better, and the functional value of a number of crafts is thoroughly explained. The therapists will have very little difficulty understanding the reasons for writing a prescription for the modalities referred to in this chapter. The section on vocational evaluation and adaptation of tools to the hand is superb. The list of games used in occupational therapy, the remedial exercises, and serial plaster technics are novel and most instructive.

The ninth chapter, by Dr. Brooks, deals with "Reconstruction of the Injured Hand" and the physical treatment after reconstructive surgery. The principles of re-education are fully explained. The final chapter discusses "Resettlement," the return of the hand-injured patient to a job. The facilities and services available in Great Britain for rehabilitation are explained. For a while, the reviewer thought the British were different, because they recovered more rapidly from hand injuries than has been seen in his experience, but, in the end, the author mentioned the "best way to avoid, or at least minimize compensation neurosis is to provide a background of interest in getting the patient back to work. . . ." Finally, the book closes on the problem of vocational rehabilitation of the seriously disabled hand-injured workmen.

This book is not easy to read. It is a textbook to be studied. The authors waste neither words nor gestures, and every paragraph contains a pearl of wisdom. They strive to drive home their thesis on "Rehabilitation of the Hand" in the most complete fashion in print today. No stone is left unturned, and for this reason they should be forgiven for presenting all the fundamental technics of physical and rehabilitation medicine in such elaborate detail and in cookbook style. Experience does bring perfection!

All the medical and technical problems dealing with the rehabilitation of injuries and infections of the hand are answered. The book is beautifully and profusely illustrated with excellent photographs and well documented with numerous case histories. The bibliography is concise and adequate, but the work is a valuable reference of personal know-how. Rehabilitation centers treating multiple incidents of trauma to the hand will learn much

to formulate a smooth, complete, and proficient daily therapy schedule.

This book will also leave its mark in medical-legal circles, and the tribunals dealing with injuries compensated by workmen's compensation laws will refer to it constantly.

Dr. C. B. Wynn Parry and his collaborators have written a truly valuable and necessary text on "Rehabilitation of the Hand."

Other Books Reviewed

1

Approaches to Research in Mental Retardation; Proceedings of the 1959 Woods Schools Conference . . . May 1-3, 1959

By: **Woods Schools**, in cooperation with the Technical Planning Project, American Association on Mental Deficiency

1959. 432 p. figs., tabs. Paperbound. *(Reprinted from: Am. J. Mental Deficiency. Sept., 1959. 64:2)* Available from Business Office, American Assn. on Mental Deficiency, P.O. Box 96, Willimantic, Conn. $3.00.

Published originally as a special issue of the *American Journal of Mental Deficiency,* the proceedings of the annual Conference of the Woods Schools deal with research design and methodology, discussed by key research personnel in the field.

CONTENTS: RESEARCH in mental retardation, prospects and strategies, Nicholas Hobbs.—Principles of research, Jerome Cornfield.—Research: cult or cure?, Margaret Mead.—Measurement problems in research, Boyd R. McCandless.—Planning cooperative utilization of data on the mentally retarded, Irving Lorge.—Measurement of patient flow in institutions for the mentally retarded, Morton Kramer.—Some use of descriptive statistics in population analysis, Harvey F. Dingman.—Measurement of personality development in pre-adolescent mentally retarded children, James J. Gallagher.—Methodological approaches to research in etiology, Richard L. Masland.—Methodologies applicable to the study of learning deficits, Thomas Gladwin.—Research on the influence of sociocultural variables upon organic factors in mental retardation, Benjamin Pasamanick.—Requirements for research on learning in mental deficiency, Lawrence M. Stolurow.—A methodological approach to personality research in mental retardation, Rue L. Cromwell.—Methodological problems in research in the educational programs for the treatment and habilitation of the mentally retarded, Herbert Goldstein.—Problems of methodology in research with drugs, Theodore Greiner.—Pitfalls of nomenclature, Dorly D. Wang.—Sampling and related problems in research methodology, Leon Festinger.—Problems in experimental design, Dee W. Norton.—Problems of devising and selecting appropriate measurement tools, Lyle V. Jones.—Problems in analysis of data, Sidney Siegel.—Summary of Conference, Herbert G. Birch.

2

Cast Off the Fetters; The Autobiography of a Dream

By: **Carl Burrows**

1959. 186 p. illus. Regent House, 4554 Broadway, Chicago 40, Ill. $2.95.

THE LIBRARY of the National Society for Crippled Children and Adults, Inc., has in its collection an early report of the Orthopaedic Hospital-School for crippled children of Los Angeles (now Orthopaedic Hospital). Under a picture of Carl Burrows is the following legend: "Entered 1922. Infantile Paralysis involving lower limbs and back. Six operations and long periods in casts and traction enable him to get about with the aid of crutches and braces. Employed in Administration Office, Orthopaedic Hospital-School, while training for his life work, authorship."

More than a personal account of a handicapped person, Mr. Burrows' book is a story of an interesting and adventurous life, told with good humor and flashes of insight into the author's problems and predicaments. Mr. Burrows has dedicated his book to Preston T. Slayback, Business Executive of the hospital, who did so much to awaken his pride and ambition to make his own way in the world. The book will satisfy the general reader as fine entertainment, written as it is by a man who has worked as a blacksmith's helper and a hoistman in a California gold mine, and by a man who fulfilled his dreams to sail his own fishing boat in Alaskan waters. It will interest others as a demonstration that a crippled boy can be mischievous and fun loving and that as a man he can live a colorful life, resourceful, with many friends.

3

Experiment Perilous; Physicians and Patients Facing the Unknown

By: **Renee C. Fox**

1959. 262 p. Free Press, Glencoe, Ill. (Order Department, 119 W. Lake St., Chicago 1, Ill.) $5.00.

"LIFE IS SHORT and the art long, the occasion instant, experiment perilous, decision difficult."—Hippocrates' *Aphorisms.* This book is a sociologic report of patients in a metabolic ward, suffering from incurable diseases, and of their physicians experimenting on the frontiers of science and medicine. The author studied difficulties shared by physicians and patients. Associating freely with both groups, she observed, and reports here, the ways patients and physicians together coped with the severe

stresses both experienced in facing diseases that required radical, experimental treatment. The social mechanisms and modes of adjustment noted include the "grim" joke and ward humor, the clublike atmosphere of the ward, and the dedication to medical research on the part of patient and physician alike. The refusal of Paul O'Brian to surrender to Hodgkin's disease and inevitable death and the cheerful acceptance by Leo Angelico of the career of ward inmate and a wheelchair life illustrate aspects of patient adjustment to chronic disease.

4

Occupational Therapy as a Link in Rehabilitation; Proceedings of the Second International Congress

By: **World Federation of Occupational Therapists**

1959. 325 p. illus., figs., tabs. Published by the World Federation of Occupational Therapists and distributed by the American Occupational Therapy Association, 250 W. 57th St., New York 19, N.Y. $2.50.

CONTENTS include messages of delegates, addresses by authorities in the rehabilitation field from various countries, reports of panel and group discussions, and a summary of the Congress. Delegate message contained a brief statement of progress in occupational therapy in the respective countries. Theme of the Congress was the role and contributions of occupational therapy in rehabilitation of the mentally ill and physically handicapped and the relation of the occupational therapist to other members of the rehabilitation team. In addition to articles discussing specific technics for various physical and mental disabilities, the vocational aspects of rehabilitation were considered. Educational problems in the training of therapists and suggestions for research in occupational therapy were mentioned in brief group reports.

5

Directory of American Psychological Services, 1960

By: **American Board of Psychological Services**

1959. 214 p. Distributed by American Board for Psychological Services, Glendale, Ohio. $1.50.

THIS APPROVED LIST was prepared and distributed by the Board to serve as a guide to competent psychological services in the United States. Four listings from Canada are included. Individuals engaged in private practice and organizations offering services apply voluntarily for listing in the directory; all are subjected to rigorous evaluating before being accepted. Information is organized in a state-by-state alphabetical order; each entry gives name, address, sponsorship, name of director, type of services, clientele accepted, fees, method of application, office hours, and branch offices (if any). Information given in the appendix concerns state boards or agencies responsible for certification of licensure of psychologists. Diplomates of the American Board of Examiners in Professional Psychology are listed.

6

Delinquent Behavior; Principles and Practices

By: **William C. Kvaraceus** (and others)

1959. 350 p. Paperbound. National Education Association, 1201 16th St., N. W., Washington 6, D.C. $2.00.

THIS FINAL REPORT of the National Education Association's Juvenile Delinquency Project offers practical assistance to teachers, social workers, and lay persons working with delinquent youth. From data obtained through regional and national conferences and studies of programs of specific schools and community agencies, procedures for identifying potential delinquents and for preventing and controlling delinquency have been formulated. The report defines the school's responsibilities in dealing with the problem. Chapter 6, "Providing help through special classes," is a guide to the organization, administration, and practices employed in special schools and classes for extremely disturbed or disturbing children.

7

Educational Psychology and Children

By: **K. Lovell**

1959. 272 p. figs., tabs. *(2d ed.)* Philosophical Library, Inc., 15 E. 40th St., New York 16, N.Y. $6.00.

IN THIS TEXTBOOK written primarily for students in university departments of education in England, Dr. Lovell offers a balanced presentation of recent and classic contributions to educational psychology. It is intended to give the teacher insight concerning the nature of intelligence, its growth and development in children, personality and its measurement, motivation, maturation and its influence on educational achievement, learning theories, technics for educational assessment and guidance, mental deficiency, social behavior, and characteristics of children from the preschool stage through adolescence.

8

Released Mental Patients on Tranquilizing Drugs and the Public Health Nurse

By: **Ida Gelber, R.N., Ed. D.**

1959. 139 p. tabs. Paperbound. *(Nursing research monograph no. 1, Dept. of Nurse Education, New York Univ.)* New York University Press, Washington Square, New York 3, N.Y. $3.00.

(Continued on page 32)

REHABILITATION LITERATURE

Annual Index, Volume 20, 1959

This is a cumulated list of authors for 1959. All numbers identify the entry numbers under which the references appear in *Rehabilitation Literature*, except those that are set in italic type in which cases the numbers refer to the page where the item is located. References on a specific subject may be found by checking that subject in the *Abstracts* section of each issue.

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As a reviewing and abstracting journal, *Rehabilitation Literature* identifies and describes current books, pamphlets, and periodical articles pertaining to the care, welfare, education, and employment of handicapped children and adults. The selection of publications listed and their contents as reported is for record and reference only and does not constitute an endorsement or advocacy of use by the National Society for Crippled Children and Adults.

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The National Society for Crippled Children and Adults does not stock for sale publications indexed in *Rehabilitation Literature*. List prices and addresses of publishers are given for information only. Copies should be obtained directly from the publisher or through local bookstores. Known addresses of authors of periodical articles follow their names.

Books for review and correspondence relating to feature articles and other editorial matters should be addressed to the editor. He will welcome your suggestions.

Journal articles, chapters of books, research reports, and other current publications have been selected for digest in this section because of their significance and possible interest to readers in the various professional disciplines. Authors' and publishers' addresses are given when available for the convenience of the reader should he desire to obtain the complete article or publication. The editor will be most receptive to suggestions as to new publications warranting this special attention in Digests of the Month.

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Registry for Handicapped Children; Annual Report, 1958

By: **Department of Health Services and Hospital Insurance** *(828 W. 10th Ave., Vancouver 9, B.C.)*

August, 1959. 37 p. tabs. Mimeo. *(Div. of Vital Statistics, Special Reports no. 37)*

THE REGISTRY for Handicapped Children (formerly Crippled Children's Registry) began operation in 1952. Purposes were to obtain accurate knowledge of the size of the problem of crippling disease in British Columbian children, to help in developing facilities and organizations to aid in their rehabilitation, and to assist physicians in handling and referral of cases. A handicapped child was defined as under 21 years of age and with a disability severe enough to interfere with normal living, education, and, later, earning a living.

The Division of Vital Statistics (DVS) administers the Registry under the jurisdiction of the Health Branch, Department of Health Services and Hospital Insurance. Twenty-five specialists are on the advisory medical panel, of which the chairman and deputy chairman are part-time medical consultants for the day-to-day work. An administrator for the DVS and two clerical workers are the permanent staff.

Registrations come mainly from local health services and the Metropolitan Health Committee of Greater Vancouver and also from the Indian health services; treatment centres, hospitals, and clinics; voluntary agencies; special schools; private physicians; and the DVS birth reports.

The basic history for each child is the registration form. These cards are filed alphabetically; each case is numbered for statistical punching and control. Correspondence is numerically filed. Cases are classed as active or inactive. Each case with unresolved difficulties remains active; others are inactive, but they may be reactivated at any time. Active cases are reviewed at 3, 6, or 12 months depending on individual need; a progress report is requested from the agency concerned. An active case is followed up until the medical consultant and local health services reclassify it.

Cases are also classified according to checks made in boxes on the cards by the registering agency, as follows:

1. *Statistics only.* Case is coded and recorded only. On request such cases can be made active.

2. *Advice from the Registry.* Case is coded, recorded, and immediately referred to the medical consultant for investigation and reply. Case is kept active until otherwise indicated.

3. *Active follow-up.* Case is coded, recorded, and immediately referred to the medical consultant. If the child apparently is not receiving adequate attention, the consultant may initiate enquiries of the agency concerned and offer advice. If attention is found adequate, the consultant will recommend a date for follow-up by the Registry. At intervals these cases are again referred so the consultant can determine further required attention, which the Registry will work to initiate.

Information recorded on cards at the Registry is coded for transfer to IBM punchcards, with only the basic data coded for statistical purposes. All card punching and mechanical tabulation work is done at the DVS headquarters at Victoria. All changes in address, disability, or status are forwarded. Punch cards have space for up to four disabilities (coded by the *International Statistics Classification of Diseases, Injuries, and Causes of Death*).

Although all registrations are strictly confidential, statistical data are readily available to any person or agency having a legitimate interest in the problem of handicapped children. In some instances special tabulations have been prepared to provide data. Alphabetical indexes of registered cases are prepared for each local health unit annually, with an additional set for each school district.

A manual is available for any new agency or service outlining procedures for use of the Registry's services. The Registry is examining various problems met by handicapped children, one being special vocational training.

After a conference between the chairman of the Medical Advisory Panel and the coordinator of rehabilitation, children who can benefit from training and placement are brought to the attention of the agency concerned, which may review the case and refer the child directly to the coordinator of rehabilitation. In other cases, the Registry advises a review by the rehabilitation committee (chairman of the Advisory Medical Panel, the administrator, the coordinator of rehabilitation, and the medical consultant to the Rehabilitation Service). Out of this review have come worthwhile suggestions for changing the type of data collected and indications of lacks in educational opportunities for certain groups.

The Registry has made a survey of all active and inactive cases in the Okanagan area with the coordinator of rehabilitation reviewing them to ascertain whether inactive cases remain a community problem and to find out if local health services could adequately service such cases with a local rehabilitation committee. The Registry feels that such a local committee can service a great many cases without requiring more than advice from the Rehabilitation Service and could be useful in screening cases for training. The Registry would like to do a survey of a large urban centre such as Vancouver.

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My Cleft Palate

By: **Harry Z. Roch,** D.D.S. *(Great Falls, Montana)*

In: *Cleft Palate Bulletin.* Oct., 1959. 9:4:54-59.

"What did you say?" could have been the story of my life. Born with a cleft palate, I lived through the long anxious years only a child with a severe speech handicap can experience. My work as a prosthodontist continually brings me within earshot of those four simple words. It becomes habitual for a person with cleft palate to expect these words. He knows he will be repeating himself. Many listeners will have a disturbing manner of watching his lips as they try to read the words. You can see them forming anticipated words with their own lips.

The feelings and emotions of a person with cleft palate are as much a part of the treatment plan as his type of cleft. His primary goal is to express himself so that others will understand. It is a joy to be understood after the many years of frustrating speech experiences. As a child I lived among friends, within a normal family circle, and felt "accepted." I erred in believing my speech was normal; I accepted my voice as a good sound. In third grade I was first aware something was wrong. I wondered why I was not called upon; others began to tease me and began to use nicknames such as "Lippy." Was I really accepted? Doubts formed and grew. There were no therapists or others interested in my plight. My ego was completely shattered in the sixth grade when my music teacher asked me not to sing as the others completed a lesson. My silence began and remained throughout the school years. I never raised my hand, so as not to embarrass my teachers, and was not called upon. It was easier to avoid friends and the words "What did you say" than to have to speak. Those silent years were long and frustrating.

My "suppressed expression" had its roots in the sixth grade. I controlled my words, my expressions, and my outbursts, even an outcry of pain. This was a penalty for suspecting, fearing, and finally knowing that I was "different," even though I did not fully understand why or how. No one during 12 years of school had ever explained. My feeling created an emotional problem for me. My ears still deceived me: my voice was still pleasant to me. Why wasn't it to others?

In 1941 my family moved to a large city and I selected at random a "speech person." This experience was a failure. No attempt was made to understand my problems. I was handed an "aid without a handle," the result being that I felt my problem was more serious than suspected. In 1942 I was drafted; upon discharge I enrolled in college and was directed early to a speech and hearing center. My therapist looked at me, talked with me, and listened before starting formal lessons. When I heard my voice for the first time with a tape recorder, all the bewilderments and frustrations of years fell into place. I realized why people acted as they did. As I learned about speech I found myself becoming interested in cleft-palate rehabilitation.

Speech therapy is vital in rehabilitation. To develop a new speech pattern and create a desired and natural habit, long empty hours must be spent alone, repeating to yourself. Practice, practice, and still more practice with that invaluable aid, the mirror.

For me a successful speech therapy formula has been perseverance, experience, and professional help. Give pupils a cause, along with professional help, and the success of therapy will be greatly enhanced. Look at your pupil more than once—who and what is he? If you have one who relies on "suppressed expression," you must base your efforts on the knowledge that he feels secure only among friends and will try to remain in his protective shell unless you can show him advantages in making a change. He will see this through personal motivation, teacher cooperation, and knowledge. You must stress social adjustment and acceptance. What is wrong must be relayed to the handicapped person; he must be shown why and to what extent he cannot communicate adequately. We must not treat him as a label: we need to establish what is normal or average for him and then get a goal. Compensation toward normal function can be found by many avenues; we are free to try as many as we wish or are directed toward.

Many children with cleft palate do not have normal oral and pharyngeal muscle physiology; therefore, we substitute. We try to achieve harmony between existing tissue and a prosthesis. We do not replace missing parts, but rather we substitute, we try to compensate. We must attempt many changes and corrections to achieve the best results. We deal with missing or inadequate tissue, untried muscles, a physical mass of acrylic plastic, and, above all, an individual. I feel my responsibility continues with the speech training. When a speech aid is newly inserted, liaison must be close between prosthodontist and speech therapist. We and the patient can gain the most by our understanding the other's problems. Acceptance of the speech aid by individuals often takes time

and understanding. Most learn to recognize that the aid does make a difference. They do speak better and the aid does not hurt and improves their oral hygiene.

Some generalizations I have developed with regard to speech aids are: (1) Parents expect normal speech on initial insertion of the aid and are often disappointed at an initial setback. We must emphasize the value of speech therapy. (2) Illness, colds, and fatigue all tend to decrease efficiency. (3) Parents hold a large key to successful rehabilitation for our children with cleft palate. Parents must accept their responsibilities; without them we fall short of our intended goals. All members of the rehabilitation team must be responsible for parent education. We must teach parents to understand their children's problems; we must answer their questions and help them ask other questions that lurk at the fringes of their consciousness. They must be shown they are not alone. We must insist that the father in addition to the mother take time to understand the child's many problems. Mothers ordinarily show the greatest interest in helping their children but often do not have the necessary insight. We must educate as well as provide services; otherwise we will always have mothers who are confused. Often parents are so overwhelmed by guilt feelings and emotional problems that they do not understand or perhaps even hear our attempts at parent education. Sometimes we must go slowly with our explanations and sometimes special professional help is needed with a parent's problems before he can function as a member of the team.

I am convinced that the team approach is the most adequate for rehabilitation and the best results are obtained when the team follows the child from birth. It is gratifying that nowadays so many from the various professions are interested in the problem. The one minor weakness I have found is that the team may sometimes tend to be concerned with numbers rather than to always look at the individual. We have learned we cannot section the individual, each profession looking at his section, and obtain the best results. So, too, we cannot label our patients, give them numbers, or group them according to prior experience. We cannot create quotas and have the best results. The cooperation of the child is based on self-interest; his cooperation is based on the interest in him that he recognizes as present in others. He frequently requires that only one member of the team really and sincerely care about him and his problems. The total personality should always be the object in our rehabilitation.

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1. A Survey of the Physical and Mental Status of Cerebral Palsied European Chidren at School in the Union of South Africa; 2. A Survey of the Adult with Cerebral Palsy

By: **C. H. De C. Murray** *(Inspector of Psychological Services, Dept. of Education, Arts and Science, Pretoria, S. Africa)*

1959. 103 p. tabs. *(Research ser. no. 4)* National Bureau of Educational and Social Research, Dept. of Education, Arts and Science, Private Bag 122, Pretoria, S. Africa.

To provide information to the National Council for the Care of Cripples in South Africa to help in planning care of adults with cerebral palsy, a survey was made of the physical and mental status of the 380 cerebral palsied children in school during the latter half of 1957 who needed special education. The survey was factually analysed; facts pertinent to care after leaving school emerged.

There were three males for every two females both in the total group and when grouped by degree of severity. The ratio of those speaking Afrikaans to those speaking English was about 1:1, with the former slightly in the majority. The average age was about the same for boys and girls, although in the preschool groups the girls were older. The ratio of the groups *Mild, Moderate,* and *Severe** was 6:7:5. As the children grow older the size of these categories is maintained, although individuals may move from group to group. The children's mean intelligence was far below the average for normals. It is estimated that 30.7 percent of the children surveyed had I.Q.'s of 90 or higher and 53.4 percent had I.Q.'s below 80, with 15.9 percent falling in the dull normal range of 80-89. See table 29 for a classification of 189 children as to degree of impairment according to intelligence

Table 29

I.Q.	Mild	Moderate	Severe
25-49	4	5	4
50-69	16	23	8
70-79	14	16	12
80-84	2	6	5
85-89	9	3	4
90	28	24	6
Total	73	77	39

**Mild:* No treatment needed as patient has no speech problems, is able to care for his daily needs, and ambulates without the aid of any appliances. *Moderate:* Special treatment needed as patient is inadequate in self-care, ambulation, and/or speech. Braces and self-help devices are needed. *Severe:* Treatment is needed but the degree of involvement is so severe that the prognosis for self-care, ambulation, and speech is very poor.

levels. It seems reasonable to expect the children with mild cerebral palsy and I.Q.'s above 70 to be able to make their own ways after leaving school, provided they have the drive and initiative. That leaves 20 (*see* table) in this group who might need custodial care on leaving school. In the *Moderate* group, it is doubtful whether any with I.Q.'s below 80 would be able to be economically independent; 44 would need custodial care. All 39 of the *Severe* group would need this care, even though 6 were from 90 to 109 in I.Q. On the basis of the 189 children listed in the table, it was concluded that, of the total of 380 children surveyed, the following would need custodial care:

Mild Group:	27.4% of 128 =	35
Moderate Group:	57.1% of 149 =	85
Add the Whole of Severe Group	=	103
	Total =	223

When factors such as lack of drive and initiative, inconstancy of performance, and inability to maintain attention are considered, the group needing custodial care may be greater. Sixty-five percent of the children had shown an inability to persist in their tasks and more than half did not concentrate well.

It should be noted that only 27 out of 380 children were doing school work from Std. 6-10 (high school), 15 being in Std. 6. As a Std. 6 certificate is the minimum scholastic certificate required for most permanent employment, the outlook for cerebral palsied children is gloomy. Out of the 380, 58 children (40 boys, 18 girls) were 16 years old or more, 21 being in Std. 6-10; this leaves 37 over 16 who are now probably needing some form of care.

In a survey of adults with cerebral palsy forms were returned from Cripples' Care Associations in Pretoria, Johannesburg, Cape Town, Port Elizabeth, Witbank, Windhoek, and Kimberley, and the St. Giles Association in Durban, and Meerhof Hospital Extension at Hartebeestpoort. Of 174 forms received, 37 were eliminated since they concerned children and 26 because they were incomplete or because cerebral palsy was not diagnosed by a medical doctor. That left 111 forms.

There were 63 males and 48 females, the ratio being 4:3 (1.31:1). Afrikaans was spoken at home by 55, English by 34, both by 2, another language by 1; no data was given by 19. The age range was from 15 to 64. The mean age for men was 29.6 years (S.D.:9.9); that for women was 27.3 years (S.D.:10.6); that for both 28.8 years (S.D.:10.4). This means that between the ages 18.4 years and 38.2 years there was a total of 67 cerebral palsied adults.

Of this group of 111, only 10 (9%) had no use of their hands. No impairment at all was had by 33 (29.7%). Eighty-three (74.8%) could walk with or without the aid of appliances, including 11 with no walking disability. There were 27 who could not walk at all. Thirty (27%) used wheel chairs, 65 (58.6%) did not, and 16 supplied no information. Two of the 39 males who did not use wheel chairs could not walk at all. Thirty-five (31.5) had permanent work and one temporary. Ten (9%) had homebound work, 60 (54.1%) were unemployed, one was a university student, and of 4 nothing was known. The average wage for men was £386.14. 0 and for women £268. 4. 0. Only 19 males and 23 females received annual disability grants, the range running from £66 to £180. The five highest must have had support other than grants from the state, as £126 is the maximum allowed.

Fifteen adults lived in their own homes; 65 (58.6%) resided with their parents; 12 (10.8%) boarded with private persons; 6 (5.4%) resided in boarding houses or hotels; and 13 (11.7%) lived in homes for the chronically sick or crippled. Thirty-six (32.4%) adults required special accomodations (14 men, 22 women).

The data given above may help to indicate needs for financial help and residential care. If there are no other sources of support for those receiving disability grants and those in low-income employment, then their economic plight is serious.

(Continued from page 16)

THE USE of chemical tranquilizers for the treatment of emotional and mental disorders has resulted in more patients being permitted to return to the community and their families. Adequate programs for regular medical supervision and for rehabilitation of released mental patients are needed; few communities have developed such services. This reports a study of the public health nurse's role in follow-up programs. From an intensive review of the literature, the author has prepared a rationale for a suitable community program in which the public health nurse is recognized as the key figure. A questionnaire survey of mental hospital authorities in 18 states revealed vital information on the needs of released patients and the policies in regard to their care. Posthospital needs for public health nursing services and accepted functions of the nurse are discussed. The need to consider the patient's family in a program of foliow-up care has been emphasized. Several related areas are suggested for further research.

The first of a series of three articles by Dr. Gelber, based on her study, appeared in the November 1959 issue of *Nursing World*.

This publication is the first of a series of nursing research monographs to present significant findings of investigations conducted by faculty members and nurses at the graduate level in the Department of Nurse Education, New York University.

This abstracting section, together with other numbered references indexed in this issue, serves as a supplement to the reference book Rehabilitation Literature 1950-1955, *compiled by Graham and Mullen and published in 1956 by the Blakiston Division of McGraw-Hill Book Company, New York. An author index will be found on the last page of the issue.*

AMPUTATION

12. Frantz, Charles H. *(920 Cherry St., Grand Rapids, Mich.)*

The child amputee. *Med. Times.* May, 1959. 87: 5:615-631.

An analysis of the more than 400 children treated at the Area Child Amputee Center, Grand Rapids, under the Michigan Crippled Children Commission is presented. With a well-organized training program children learn to accept and operate prostheses with excellent results. An ideal program is outlined; parental cooperation and the interest of the child's school teacher are necessary.

AMPUTATION—EQUIPMENT

13. Marquardt, E. *(Orthopaedic Clinic, Heidelberg Univ., Heidelberg-Schlierbach, Germany)*

The pneumatic arm, by E. Marquardt and O. Hafner. *Rehab. Bul.,* World Veterans Fed. 1959. 15:11-24.

A description of the Heidelberg prosthesis, a new type of artificial arm that uses high-pressure carbon dioxide as a motive power for joint movements. A systematic training course for amputees is discussed. The authors recommend that child amputees be equipped with pneumatic prostheses before the age of five. The versatility of this type of prosthesis makes it extremely useful for patients who have had both arms exarticulated and for patients with upper arm and forearm amputation.

AMPUTATION—MEDICAL TREATMENT

14. Burnham, Preston J. *(508 E. South Temple St., Salt Lake City 2, Utah)*

Amputation of the upper extremity. *Ciba Clin. Symposia.* Aug.-Oct., 1959. 11:4:107-137.

Dr. Burnham discusses all types of amputations to the upper extremity. Included are 15 pages of colored illustrations, mainly of the surgical technics. This issue is available to members of the medical profession from Ciba Pharmaceutical Products, Inc., Summit, N. J.

APHASIA—DIAGNOSIS

15. Karlin, Isaac W. *(41 Eastern Parkway, Brooklyn 38, N.Y.)*

A multi-evaluational study of aphasic and non-aphasic right hemiplegic patients, by Isaac W. Karlin (and others). *J. Speech and Hear. Disorders.* Nov., 1959. 24:4:369-379.

This first report of a continuing study being conducted at the Jewish Chronic Disease Hospital, Brooklyn, deals with possible cortical localization in relation to the symptom complex of aphasia. It was observed that those aphasic patients with an illness of intermittent onset showed greater disturbance in both receptive and expressive areas than those having sudden onset of the disease. Patients with aphasia due to thrombosis had language disturbances predominantly of the receptive type in contrast to patients with aphasia due to embolism. Other findings are reported on performance on the Wechsler Adult Intelligence Scale, electroencephalographic studies, and hearing loss.

ARTHRITIS

16. American Rheumatism Association

Primer on the rheumatic diseases. *J. Am. Med. Assn.* Oct. 31, Nov. 7 & 21, 1959. 171:9, 10, & 12. 3 pts.

This fifth edition of the *Primer* is written with the particular needs of the general physician and student in mind. Earlier editions were issued in 1934, 1942, 1949, and 1953. Reprints are available from the American Rheumatism Assn., 10 Columbus Circle, New York 19, N. Y., at 50¢ a copy.

17. The National Foundation *(800 Second Ave., New York 17, N. Y.)*

National Foundation Conference on Rheumatoid Arthritis (held on April 4, 1959). *J. Chronic Diseases.* Nov., 1959. 10:5:365-438.

Contents: Introduction, William S. Clark.—Rheumatoid arthritis; historical aspects, Charles L. Short.—The pathogenesis of rheumatoid arthritis, J. P. Kulka.—The biochemistry of connective tissue, Albert Dorfman.—Immunologic aspects of rheumatoid arthritis, Henry G. Kunkel.—Future lines of research on rheumatoid arthritis, Lewis Thomas.

ARTHRITIS—MEDICAL TREATMENT

18. Littler, T. R.

Rheumatoid arthritis and its treatment. *Physiotherapy.* Oct., 1959. 45:10:227-232.

Reviews clinical aspects and outlines briefly a program for physical therapy on an outpatient basis. The advantages of the system are that it places responsibility for improvement on the patient, who must be motivated to follow through on recommended regime, and it also relieves overcrowding in understaffed hospital departments.

ASTHMA

19. Storr, Noel V.

The management of the chronic asthmatic patient. *S. African Med. J.* Oct. 24, 1959. 33:43:889-892.

Another of the articles in the General Practice Series for the busy practitioner. The author stresses the importance of psychological factors in the etiology of asthma. Group therapy may play an important role in the manage-

ment of certain cases. Drug therapy, measures to prevent upper respiratory infections, the effect of climate, and the value of physical therapy are discussed.

AUDIOMETRIC TESTS

20. Hutton, Charles *(University Hearing Center, Univ. of Illinois, Urbana, Ill.)*

Semi-diagnostic test materials for aural rehabilitation, by Charles Hutton, E. Thayer Curry, and Mary Beth Armstrong. *J. Speech and Hear. Disorders.* Nov., 1959. 24:4:319-329.

Describes development of a multiple-choice word list suitable for the testing of auditory, visual, and combined auditory-visual intelligibility in aural rehabilitation. Experience with the test in auditory form showed that it was sensitive to different kinds of hearing loss and yielded reliable estimates of discrimination ability. Disc and tape recordings, with answer sheets, have been prepared and are available from the Illini Union Bookstore, University of Illinois, 715 S. Wright St., Champaign, Ill.

BLIND—SPECIAL EDUCATION

21. Miller, Mary J. *(West Hartford Public Schools, West Hartford, Conn.)*

Reading readiness for a blind child in public school. *Exceptional Children.* Nov., 1959. 26:3:123-125.

In many areas of readiness, the blind child will need no special considerations; his strengths—auditory discrimination, memory, and verbal skills—can be utilized to make reading a successful experience. Methods for providing experiences to aid the blind child in acquiring reading readiness are discussed.

22. Nemeth, Abraham *(Univ. of Detroit, Detroit 1, Mich.)*

Teaching meaningful mathematics to blind and partially sighted children. *New Outlook for the Blind.* Nov., 1959. 53:9:318-321.

Often parents deny the child experiences that would teach him relative sizes and shapes of objects. Mechanical devices for writing further complicate the blind child's problem. Language commonly used in teaching arithmetic is also confusing. All these observations should be kept in mind when modifying teaching methods to meet the requirements of partially sighted or blind children.

CEREBRAL PALSY

23. Denhoff, Eric *(Meeting Street School Children's Rehabilitation Center, Providence, R. I.)*

Teaching meaningful mathematics to blind and partially sighted children. *New Outlook for the Blind.* Nov., 1959. 20:5:153-161.

A retrospective study of the case records of 117 children. Implications are that true spontaneous type of hemiplegia with a known precipitating cause is the exception rather than the rule. Early diagnosis of spastic hemiplegia usually cannot be made on clinical signs alone; early findings should be correlated with the birth records and with developmental and psychologic progress. Pneumoencephalography need not be used except in early cases where the clinical diagnosis is unclear.

24. Guy's Hosp. Reports. 1959. 108:1. *(Sir Russell Brock, Editor, Guy's Hosp., London, S.E. 1, England)*

Partial contents: Cerebral pathology in the newborn, Albert E. Claireaux, p. 2-20.—Lesions of the temporal lobes complicating infantile cerebral palsy, J. B. Cavanagh, p. 21-31.—The natural clinical history of choreoathetoid "cerebral palsy," Paul E. Polani, p. 32-45.—Specific intellectual difficulties in cerebral palsied children, C. Koupernik, p. 46-50.

The first three papers were read before the Little Club in 1956; the fourth was presented to the Club in 1955. Dr. Claireaux's article gives data from a study of the intracranial lesions found at necropsy in 646 cases of stillbirths and 410 newborn infants. Some attempt has been made to assess the type of lesion possibly responsible for the development of cerebral palsy in infants surviving beyond the neonatal period. Dr. Cavanagh offers some preliminary conclusions drawn from a study of more than 50 temporal lobes removed for the relief of temporal lobe epilepsy. Four cases gave a history of permanent or transient hemiplegia. These cases are briefly described. Dr. Polani reports a retrospective study of 73 patients with choreoathetoid cerebral palsy, made to determine the clinical pattern of the early stages of the syndrome. The last article discusses three factors that handicap the cerebral palsied child — specific impairment of brain functioning in the brain-damaged child, the slowing down and distortion of maturation processes, and severe difficulties in learning.

See also 30; 31.

CEREBRAL PALSY—SURVEYS—SOUTH AFRICA

See 11.

CHRONIC DISEASE

See 3.

CLEFT PALATE

See 10; 70.

CLINICS (ITINERANT)

25. Gingras, G. *(6265 Hudson Road, Montreal, Canada)*

Rehabilitation; home program. *Canad. Med. Assn. J.* June 1, 1959. 80:11:874-876.

Dr. Gingras considers the professional requirements for home services programs, their organization and administration, and the basic principles and technics to be observed. The establishment of mobile services for rural areas might be a cooperative project of governmental and voluntary agencies and the medical profession.

COLLEGES AND UNIVERSITIES

26. Stuart, Irving R. *(540 E. 20th St., New York 9, N.Y.)*

An objective scale rating the physically handicapped for educational purposes. *Personnel and Guidance J.* Nov., 1959. 38:3:211-216.

A report of a study to devise and evaluate a rating scale for predicting the success of handicapped college students. Requirements of various courses of study and

the physical demands posed by the school building and grounds were evaluated. It was believed that students could be evaluated by the same process, with some modification, that was developed to aid in the selection and placement of handicapped workers in industry. The difficulties found in use of the forms were similar to those experienced by the counselor attempting to place handicapped workers.

See also 34.

COLOSTOMY

27. American Cancer Society. Ohio Division. Cuyahoga Unit *(337 The Arcade, Cleveland 14, Ohio)*

Colostomy and ileostomy care; a guide of practical information for nurses. Cleveland, Cuyahoga Unit . . . Am. Cancer Soc., 1958. 55 p. illus. Spiral binding. Paperbound.

A manual designed for the use of professional and student nurses. Includes information on personal attitudes of patients and modifications of technics devised by patients to meet their everyday needs. Appendixes cover diets, community resources for services, and sources for appliances and aids. 45 references.

DEAF

See 44.

DEAF—SPECIAL EDUCATION

28. Resnick, Libby *(Jr. High School 47 Manhattan, 225 E. 23rd St., New York 10, N.Y.)*

Sources for auditory experiences and related activities, by Libby Resnick and Margaret Mary Walsh. *Volta Rev.* Nov., 1959. 61:9:413-415, 418-419.

This third of a series of five articles offers practical suggestions on activities to provide successful discriminative auditory experiences. The authors list about 70 phonograph records (and source) useful in auditory training. All five articles were written for a curriculum bulletin available on request from the address given above.

DEAF—SPEECH CORRECTION

29. Larr, Alfred L. *(20451 Hart St., Canoga Park, Calif.)*

A test of speech intelligibility, by Alfred L. Larr and Robert P. Stockwell. *Volta Rev.* Nov., 1959. 61:9: 403-407, 437.

An examination constructed to meet stated criteria is described. It may also be used to assess speech disorders stemming from causes other than hearing loss. Copies of the test are available to school administrators willing to furnish data on its use.

DRUG THERAPY

30. Phelps, Winthrop Morgan *(3038 St. Paul St., Baltimore, Md.)*

Preliminary institutional evaluation of a new drug in cerebral palsy; N-isopropyl-2-methyl-2-propyl-1, 3-propanediol dicarbamate (Soma). *Arch. Pediatrics.* June, 1959. 76:6:243-250.

A report on test results in a trial evaluation of a new meprobamate derivative having stronger muscle-relaxant properties and little tranquilizing effect. Children used in the study were 42 patients of the Children's Rehabilitation Institute for Cerebral Palsy, Baltimore. Improvement was noted to be substantially greater in patients with spasticity and with rigidity than in those with athetosis. Better relaxation in the extremities was achieved by 88 percent of the spastic patients and by 55 percent of those with rigidity. Braces were tolerated comfortably for longer periods of time and ability to accept physical therapy was improved. Of the athetoid group, 28 percent improved slightly in ability to accept physical therapy but improvement was mainly subjective and psychological. They were not helped in control of athetoid movement. Results appear to indicate that Soma is a safe and useful aid and is superior to any other drug now available under similar testing situations for the relief of spasticity and rigidity.

31. Spears, Catherine E. *(25 Red Rd., Chatham, N.J.)*

Preliminary trial of a new muscle relaxant, N-isopropyl-2-methyl-2-propyl-1, 3-propanediol dicarbamate (Soma), by Catherine E. Spears and Winthrop Morgan Phelps. *Arch. Pediatrics.* July, 1959. 76:7:287-292.

A preliminary report of an uncontrolled study, paralleling the study reported above, with 46 boys and 31 girls treated on an outpatient basis. Findings approximate those in the other study.

See 8.

EPILEPSY—EMPLOYMENT

32. Montgomerie, James F.

Employers and the epileptic. *Rehabilitation.* Oct.-Dec., 1959. 31:5, 7-9, 11-12.

An address given to the Scottish Epilepsy Conference, 17th-19th April, 1959. The author for nine months was engaged in a survey for the Scottish Council of Social Service to determine whether employers are willing to provide employment opportunities for the severely disabled. The views presented here are based on interviews with about 150 employers.

HAND

See p. 13.

HARD OF HEARING—KENTUCKY

33. Kodman, Frank, Jr. *(Audiology Clinic, Univ. of Kentucky, Lexington, Ky.)*

The rehabilitation of hearing impaired children and adults in Kentucky, by Frank Kodman, Jr., and William J. Brown. *J. Ky. State Med. Assn.* May, 1959. 57:5:570-572.

An article to acquaint the general physician with hearing rehabilitation services offered by qualified audiologists and clinics in Kentucky.

HOMEBOUND—SPECIAL EDUCATION

34. Harrison, Don K. *(South Wayne Co. Office, Div. of Voc. Rehabilitation, Dearborn, Mich.)*

Correspondence training in vocational rehabilitation, by Don K. Harrison and Louis J. Cantoni. *Voc. Guidance Quart.* Autumn, 1959. 8:1:9-11.

A report of the results of a follow-up study of 53 clients served by the Wayne County Office of the Michigan Division of Vocational Rehabilitation. This group represents approximately a 17 percent sampling of the total number of cases terminated as rehabilitated over a four-year period. All but 5 of the group had been tuberculosis patients; 40 began their correspondence program while patients in a sanitorium or hospital. Implications of the findings for vocational guidance and training are discussed.

HOMEBOUND—SPECIAL EDUCATION—CALIFORNIA

35. California. State Department of Education *(Sacramento 14, Calif.)*

Home and hospital instruction in California, compiled by Jane Stoddard and Beatrice E. Gore. Sacramento, The Dept., 1959. 67 p. illus. *(Bul., Calif. State Dept. of Education. May, 1959. 28:3)* 37¢.

State provisions were established by law in 1945 in California; limited financial aid for the education of adults in county tuberculosis hospitals was added in 1951. Since 1957, financial aid for schools or classes maintained in tuberculosis and poliomyelitis hospitals has been available from school districts in which patients formerly resided. This issue of the *Bulletin* discusses instruction of the homebound or hospitalized as viewed by a physician, policies of administration, the role of the teacher, and curriculum adaptations.

HYPNOSIS

See p. 2.

JUVENILE DELINQUENCY

See 6.

MENTAL DEFECTIVES—EMPLOYMENT

See 65.

MENTAL DEFECTIVES—ETIOLOGY

36. Berg, J. M. *(Fountain Hospital, London, England)*

Some aetiological problems in mental deficiency, by J. M. Berg and Brian H. Kirman. *Brit. Med. J.* Oct. 31, 1959. 5156:848-852.

Factors operating in the production of minor and gross mental defect are considered as they occur before conception, during pregnancy, and postnatally. Clinical and necropsy findings in a series of 44 educationally subnormal children showed that 32 had clinical abnormalities that could partially account for, or be related to, their mental retardation. It should not be assumed, the authors state, that gross pathological lesions are encountered only in idiots and imbeciles and are not responsible for numerous cases of minor mental defects. However, psychological, educational, and social factors are usually of greater etiological significance in high-grade mental defectives than in low-grade (idiot and imbecile). In respect to mongolism, by far the largest single clinical group among mental defectives, there is as yet little clue to its etiology. The authors present a working hypothesis on its possible causes.

MENTAL DEFECTIVES—PARENT EDUCATION

37. Graliker, Betty V. *(Dr. Koch, Los Angeles Children's Hospital, 4614 Sunset Blvd., Los Angeles 27, Calif.)*

Attitude study of parents of mentally retarded children: II. Initial reactions and concerns of parents to a diagnosis of mental retardation, by Betty V. Graliker, Arthur H. Parmelee, Sr., and Richard Koch. *Pediatrics.* Nov., 1959. 24:5 (Pt. I):819-821.

Parental reactions of 67 families were divided into subjective and objective categories. Causes of the retardation and rejection of the child were most frequently noted in the area of subjective concern. Other reactions such as rejection of the diagnosis and solicitude for other medical problems of the child were revealed. Even after complete diagnostic study of the children, one-third of the parents rejected the decision. Conclusions drawn from the data are that initial counseling of parents should be concerned primarily with etiology, diagnosis, and immediate problems with subsequent counseling directed to problems of future care. (See *Rehab. Lit.*, May, 1959, #405, for Part I.)

MENTAL DEFECTIVES—PROGRAMS

38. Brown, Sheldon J. *(Pacific State Hosp., Pomona, Calif.)*

Statistics on a family care program, by Sheldon J. Brown, Charles Windle, and Elizabeth Stewart. *Am. J. Mental Deficiency.* Nov., 1959. 64:3:535-542.

In same issue: A community placement program for the mentally retarded, Mary Jane Ihle Clark, p. 548-555.

Detailed data on 164 patients placed in family care are included. The prognostic significance of such variables as sex, IQ, age, length of hospitalization, and diagnosis was explored; of these factors, only age appeared to be significantly related to outcome on family care. The most frequent reasons for rehospitalization involved behavior problems unacceptable to the family or community and medical problems for which hospitalization was required. The high and continuing rate of rehospitalization, however, suggests that goals for family care should be redefined.

Mrs. Clark *(Northern Wisconsin Colony and Training School, Chippewa Falls, Wis.)* discusses factors to be considered in home placement and work placement of mental defectives and the role of the social caseworker. Over a 10-year period 848 patients have been placed in Wisconsin; the placement rate is expected to decrease, however, since many high-grade capable patients have already been released from the institution.

39. Soloyanis, George *(1902 Carlisle Rd., Camp Hill, Pa.)*

The needs of mentally retarded populations as reflected in waiting list statistics. *Am. J. Mental Deficiency.* Nov., 1959. 64:3:520-534.

An analysis of data recorded for 1,481 applications to the Polk State School (Pa.) from 1953 through 1957 was made to determine degree of retardation, ambulation, toilet training, eating habits, economic efficiency, and chronological age. Highest proportion of applications was for those rated moderately retarded, followed by

mildly retarded, severely retarded, and, finally, the borderline retarded. This particular finding does not agree with the common assumption that the severely retarded constitute the largest number of applicants. There is some reason to believe, however, that, if applicants were to be evaluated, many would fall within the category of severe retardation. The moderately retarded account for, at the very minimum, 41 percent of all applicants.

MENTAL DEFECTIVES—PSYCHOLOGICAL TESTS

40. Alper, Arthur E. *(Box 3222, University Station, Gainesville, Fla.)*

Changes in IQ of a group of institutionalized mental defectives over a period of two decades, by Arthur E. Alper and Betty M. Horne. *Am. J. Mental Deficiency.* Nov., 1959. 64:3:472-475.

A report of a study comparing the scores made by 50 mentally defective persons on the 1916 Binet test with scores made on the Wechsler Adult Intelligence Scale after an average interval of 25 years. The authors suggest that extreme shifts in IQ are few in number and there appears to be no evidence that mental level of defective persons decreases after prolonged institutionalization.

MENTAL DEFECTIVES—RESEARCH

See 1.

MENTAL DEFECTIVES—SPECIAL EDUCATION

41. Blessing, Kenneth R. *(637 Orchard Dr., Madison, Wis.)*

A survey of public school administrators' attitudes regarding services for trainable retarded children. *Am. J. Mental Deficiency.* Nov., 1959. 64:3:509-519.

Replies giving data on present services and the major areas of concern were received from 18 school superintendents in Wisconsin, representing 34 of the 40 trainable classes in operation during the 1957-1958 school year. Findings compared with those of a similar one conducted in Illinois in 1954 indicate greater all-round acceptance of trainable programs by superintendents replying in this study. A national survey is suggested.

42. Shawn, Bernard *(Philip Schuyler High School, Albany, N.Y.)*

A coordinated school supervised community work experience program for the educable mentally retarded. *Am. J. Mental Deficiency.* Nov., 1959. 64:3:578-583.

A teacher of a high school class for mentally retarded boys describes the vocational training and the "on-the-job" program developed in the community. Brief data on types of jobs obtained, eventual permanent job placement of students, and experiences of five students in the program are included.

MENTAL DEFECTIVES—SPEECH CORRECTION

43. Schlanger, Bernard B. *(Hearing and Speech Clinic, W. Virginia University, Morgantown, W. Va.)*

A longitudinal study of speech and language development of brain damaged retarded children. *J. Speech and Hear. Disorders.* Nov., 1959. 24:4:354-360.

Long-term speech therapy with 12 children institutionalized at The Training School, Vineland, N.J., resulted in varying degrees of improvement in oral communication. All were severely delayed in speech and language development but had no gross motor crippling defects or dysarthria. Situational stresses and resultant anxieties were believed to be an inhibiting factor. Therapy must be a long-term project of a personalized and intensive nature. If communication is severely limited beyond a chronological age of seven years, such children will rarely attain more than rudimentary speech and language development.

MENTAL DISEASE—NURSING CARE

See 8.

MULTIPLE HANDICAPS

44. Doctor, Powrie V. *(Gallaudet College, Washington 2, D.C.)*

Multiple handicaps in the field of deafness. *Exceptional Children.* Nov., 1959. 26:3:156-158.

Advances in medical science have kept alive many persons with multiple handicaps who, 25 years ago, would have died. More accurate diagnosis is probably responsible for the increasing number of deaf persons reported with other handicaps. What is needed now is greater public understanding and acceptance, more accurate sources of information, more trained personnel, and expanded educational and rehabilitation services. Statistics reported here are for 1957, rather than the higher figures for 1959 reported in the January, 1959, issue of *American Annals of the Deaf.*

MULTIPLE SCLEROSIS—ETIOLOGY

45. Ziegler, Dewey K. *(Div. of Neurology, Univ. of Kansas Med. School, Kansas City, Kan.)*

Multiple sclerosis and rheumatic fever; related diseases. *Diseases Nerv. System.* May, 1959. 20:5(Pt. 1):221-224.

The author reviewed the personal and family histories of 280 patients for the presence of rheumatic fever and allergic disorders. Rheumatic fever was found to occur in a sibling in 6.8 percent of multiple sclerosis patients studied. In a member of the immediate family, the incidence rate was 18 percent. A positive family history of a major allergic disease was found in 34.9 percent of these patients. Dr. Ziegler also reviews data supporting the theory that some multiple sclerosis is the manifestation of an allergic reaction of the nervous system, as well as three possible relationships between multiple sclerosis and rheumatic fever or allergic diseases. 31 references.

MUSCLES—TESTS

46. Asmussen, Erling *(Testing and Observation Institute, Danish Natl. Assn. for Infantile Paralysis, Tuborgvej 5, Hellerup, Denmark)*

Methods for evaluation of muscle strength, by Erling Asmussen, K. Heebøll-Nielsen, and Sv. Molbech. *Communications, Testing and Observations Institute,* Danish Natl. Assn. for Infantile Paralysis. 1959. 5:3-13.

A description of a series of isometric muscle tests, the apparatus used, and the positions of limbs and body, with or without fixation, during the test. Since an attempt was made to select tests in which movements of daily

living activities were represented, the tests themselves are functional. Data relate to children aged 7 to 16 years; generally only measurements of the muscle groups of the right side of the body were made. A supplement to this issue, containing 46 charts of data, is available on request. Factors correcting for age and body type will be published at a later date. Similar information on adult measurements will also be available when sufficient data have been gathered.

OCCUPATIONAL THERAPY

See 4.

OLD AGE—EMPLOYMENT

47. Rusalem, Herbert *(42 E. 41st. St., New York 17, N.Y.)*

Program for the older disabled worker. *J. Rehab.* Sept.-Oct., 1959. 25:5:24-25, 38-40.

A discussion of an experimental project of the Federation Employment and Guidance Service, New York City, under a grant from the Office of Vocational Rehabilitation. The project has been functioning for 18 months; statistics have been compiled for 169 cases. At the conclusion of the evaluation phase of the project, 20 percent were found ready for employment, an additional 30 percent would be ready for employment after additional services, and another 10 percent were considered placeable under favorable labor market conditions and employer attitudes. Of the remainder, 20 percent were considered not placeable and another 20 percent were still in the process of evaluation.

OLD AGE—MEDICAL TREATMENT

48. Medical Society of the State of New York

Medical society action in the field of aging; conference (organized by) Subcommittee on Aging . . . of the . . . held at Utica, March 7, 1959. *N.Y. State J. Med.* June 15, 1959. 59:12:2329-2358.

A summary of the proceedings of the Conference planned to consider the American Medical Association's six-point action program, proposed at a meeting of the Association's Committee on Aging in September, 1958.

Contents: Introductory remarks, Joseph J. Witt, John Guy Miller, Herman S. Hilleboe, and Norman S. Moore. —Stimulation of realistic attitudes toward aging by all people and wider use of rehabilitation services, Michael Dacso.—Extension of effective methods of financing health care for the aged, Carlton E. Wertz.—Extension of skilled personnel training programs and improvement of medical and related facilities for older people, Franklyn B. Amos.—Promotion of health-maintenance programs, George G. Reader.—Amplification of medical and socio-economic research in problems of the aging, David B. Allman.—Leadership and cooperation in community programs for senior citizens, Frank W. Reynolds.—What we can do to help the aging; reports of regional discussion groups.

PARAPLEGIA—EMPLOYMENT

49. Weems, Rachel *(Woodrow Wilson Rehabilitation Center, Fishersville, Va.)*

Rehabilitation of the paraplegic. *J. Rehab.* Sept.-Oct., 1959. 25:5:23, 37-38.

A description of the program at Woodrow Wilson Rehabilitation Center during 1957 for 100 patients. Therapy can be given simultaneously with vocational training without seriously affecting the length of the student's program. Information is included on the types of vocational training offered paraplegics.

PARAPLEGIA—MEDICAL TREATMENT

50. Armstrong-Ressy, Carlos T. *(V.A. Hosp., Tomah, Wis.)*

Results of surgical treatment of extraosseous ossification in paraplegia, by Carlos T. Armstrong-Ressy, Andor A. Weiss, and Alfred Ebel. *N.Y. State J. Med.* July 1, 1959. 59:13:2548-2553.

A report of four patients with traumatic paraplegia in whom massive para-articular ossifications developed around the hip. Surgery was indicated to eliminate ankylosis, to permit the patient to use the commode, and to permit sitting in a wheelchair or to drive a car. Good results were obtained in one patient who became ambulatory; infection was largely responsible for failure of the surgical procedure in two cases, although the clinical result was satisfactory in one. One patient was subjected to bilateral amputation but new bone deposition required the fabrication of a special leather prothesis to enable him to sit without losing balance.

See also 72.

PHYSICAL EFFICIENCY

51. Hanman, Bert *(12 Commonwealth Ave., Boston 16, Mass.)*

Clues in evaluating physical ability. *J. Occupational Med.* Nov., 1959. 1:11:595-602.

Ability can be diagnosed as accurately as disability. Mr. Hanman suggests that the Profile of Physical Abilities, a listing of 80 activities and hazards, lends itself well to realistic evaluation. Diagnostic data should be correlated with information from the constitutional workup of the patient; differences in individual physique and temperament reveal the individual areas of strength and weakness.

See also 26; 46.

PHYSICAL EXAMINATIONS

52. Felton, Jean Spencer *(School of Public Health, Univ. of California, Los Angeles 24, Calif.)*

A work evaluation clinic; its operation in a university medical center, with a review of 2,000 examinees. *J. Occupational Med.* Nov., 1959. 1:11:577-588.

Describes experiences of the Work Evaluation Clinic established at the University of Oklahoma Medical Center in 1954 to evaluate 2,000 applicants for aid to the disabled and aid to dependent children. It is believed that the location of a work evaluation clinic in a university medical center is a logical procedure.

PHYSICAL MEDICINE—PERSONNEL

53. Shields, Charles D. *(Georgetown Univ. School of Medicine, Washington 7, D.C.)*

Training in physical medicine and rehabilitation, by

Charles D. Shields and Hugh H. Hussey. *J. Am. Med. Assn.* Nov. 7, 1959. 171:10:1359-1361.

The specialty of physical medicine and rehabilitation was developed to supervise and coordinate the work of various therapists and counselors in caring for neuromuscular diseases and musculoskeletal diseases; the scope of rehabilitation has been expanded to include treatment of all physical disabilities. Medical schools should be responsible for providing instruction in this specialty and teachers should understand the objectives of broad rehabilitation services. The authors discuss a comprehensive program for training recently developed by Georgetown University School of Medicine.

PHYSICAL THERAPY

54. Kabat, Herman *(Miriam Hosp., Providence, R.I.)*

Neuromuscular dysfunction and treatment of corticospinal lesions, by Herman Kabat, Margaret McLeod, and Celia Holt. *Physiotherapy.* Nov., 1959. 45:11:251-257.

Since corticospinal lesions vary markedly in the degree of paralysis or paresis they produce and in the severity of spasticity, treatment must be highly individualized and based on thorough assessment of the neuromuscular dysfunction. The presence of contractures, deformity, pain, and circulatory disturbances will also influence the patient's potential for rehabilitation. Considerations to be observed in the treatment of spasticity, weakness, the fatigue associated with multiple sclerosis, imbalances of voluntary muscle power, are discussed. Therapeutic methods for the reduction of spasticity, for increasing voluntary muscle power, for correction of muscle imbalances, and for maintaining general functional ability are described. It is emphasized that proprioceptive facilitation technics, to be effective in rehabilitation of these patients, must be applied with flexibility, ingenuity, and common sense.

POLIOMYELITIS—BIOGRAPHY

See 2.

POLIOMYELITIS—PHYSICAL THERAPY

55. Smith, M. P. Ralph *(Beckett Hosp., Barnsley, England)*

Paralytic scoliosis. *Physiotherapy.* Nov., 1959. 45:11: 258-262.

The writer defines scoliosis, the factors contributing to its development, types of curves occurring in paralytic scoliosis, aims of treatment, and specific treatment technics in the isolation period and postinfectious stages of poliomyelitis. Active and passive exercises, pool therapy, breathing exercises, suspension, and stretching the patient in the recumbent position are used in the therapy program. The use of the Milwaukee brace is discussed.

56. Symons, Ann M. *(Churchill Hosp., Oxford, England)*

Physiotherapy in the management of respiratory poliomyelitis. *Physiotherapy.* Oct., 1959. 45:10:232-236.

This first of a series of four articles covers the severe forms of the disease and treatment during the acute phase. Types of respirators used are described briefly. General treatment, physical therapy procedures during the acute phase, and progression of physical therapy treatment as the patient improves are outlined.

PSYCHOLOGY

57. Wright, Beatrice A. *(1538 Tennessee St., Lawrence, Kan.)*

A new look at overprotection and dependency. *Exceptional Children.* Nov., 1959. 26:3:115-122.

Dr. Wright takes a second look at parent-child-relationships and suggests that parents, through the pressure of their own principles and those of the specialists, may be urging their young children to assume, too soon, an independent status. Certain kinds of dependency should be fostered during different phases of the life span of a person's development. Overprotection cannot be considered in isolation from other parental attitudes. Ways of overcoming excessive dependency needs in children are suggested. Dr. Wright believes that possibly the negative consequences of so-called overprotection in warm and accepting homes have been exaggerated.

See also p. 2; 7.

PSYCHOLOGY—DIRECTORIES

See 5.

PUBLIC HEALTH NURSING

See 8.

READING

58. Kawi, Ali A.

Prenatal and paranatal factors in the development of childhood reading disorders, by Ali A. Kawi and Benjamin Pasamanick. n.p., Soc. for Research in Child Development, c1959. 80 p. figs., tabs. *(Monograph ser. no. 73, 1959. Vol. 24, no. 4)*

Records of 372 white male children with reading disorders were compared with the records of a similar number of matched controls. Findings revealed that a significantly larger proportion of those with reading disorders had a history of premature birth and that abnormalities of the prenatal and perinatal periods (such as toxemias of pregnancy and bleeding during pregnancy) occurred with greater frequency than in the control group. Relationship of these maternal and fetal factors to reading disorders was found to be similar to that observed in stillbirths, neonatal deaths, cerebral palsy, epilepsy, and behavior disorders. Mentally deficient children and those with behavior problems were eliminated from the study in order to rule out complicating factors that might influence the findings.

A preliminary report of the study was published in *J. Am. Med. Assn.,* March 22, 1958 (see *Rehab. Lit.,* May, 1958, #531).

Available from Child Development Publications, Purdue University, Lafayette, Ind., at $3.00 a copy.

See also 21.

REHABILITATION

59. Lauer, D. John *(Jones & Laughlin Steel Corp., 30 Gateway Center, Pittsburgh 30, Pa.)*

Modern rehabilitation; an industrial physician's appraisal, *J. Occupational Med.* Nov., 1959. 1:11:589-594.

Factors hampering rehabilitation of the disabled are mainly predicated on fear; early referral can often mean the difference between successful and unsuccessful rehabilitation. The responsibilities of the industrial physician include counseling with the injured workman from the start of treatment, making it clear what he may expect in the course of rehabilitation, the compensation he will receive, and plans for his future employability.

60. McMorrow, K. J. *(St. Joseph Hosp., Mt. Clemens, Mich.)*

Evaluation of disability. *J. Rehab.* Sept.-Oct., 1959. 25:5:21-22.

Dr. McMorrow discusses in a general way the tests used in determining extent of mental and physical disability, as well as factors to be assessed in determining limitations of a social, vocational, and economic nature. The cost of financing should be shared by private enterprise.

61. Shands, A. R., Jr. *(Alfred I. du Pont Institute, Rockland Rd., Wilmington 99, Dela.)*

The crippled child. *Med. Times.* May, 1959. 87:5: 607-614.

An orthopedic surgeon discusses with general physicians the problems involved in recognition of handicapping conditions in children, their care, and the physician's responsibilities to the parents and child. The family physician is usually the first to see the child with a handicap.

REHABILITATION—CANADA

See 9; 25.

REHABILITATION—ADMINISTRATION

62. Willard, Harold N. *(Thayer Hosp., Waterville, Me.)*

Preventive rehabilitation, by Harold N. Willard and Frank A. Seixas. *Psychosomatic Med.* May-June, 1959. 21:3:235-246.

Describes a method for examining patients in a general medical ward of a general hospital to determine their need for preventive rehabilitation treatment. By initiating treatment before the disease process has become static, it has been found possible to change patients' motivations. Physical, mental, emotional, social, and vocational aspects of each patient's life situation were assessed by a psychiatrist, social worker, nurse, physical and occupational therapists, and a vocational advisor from the state vocational rehabilitation agency. Recommendations were made to patients before their release from the hospital in regard to drugs, diet, intelligent self-care, or relationship to people. Those who succeeded in carrying out the recommendations showed improvement on follow-up that was greater than anticipated for the patient on medical care alone. The team conferences were similar to those employed in rehabilitation centers for patient evaluation.

See also 25.

SCOLIOSIS

See 55.

SHELTERED WORKSHOPS

63. Arthur, John

A report on the European Seminar on Sheltered Employment, held at The Hague, August 30th-September 8th (1959). *Rehabilitation.* Oct.-Dec., 1959. 31:28-35.

A brief report of economic conditions in the Netherlands, followed by a discussion of the content of group and plenary sessions in their deliberations on the concepts of sheltered employment and organization and financing, types of work suited to the needs of persons employed, the role of medical and social services, and wage scales. Impressions of two workshops visited during the course of the seminar are described. Factors influencing successful workshop adminstration and qualifications of the workshop manager are pointed out.

64. Redkey, Henry *(U.S. Off. of Voc. Rehabilitation, Washington 25, D.C.)*

Tomorrow's sheltered workshop. *J. Rehab.* Sept.-Oct., 1959. 25:5:14-15, 26.

In this address before the Delegates Assembly of Goodwill Industries of America in 1959, Mr. Redkey notes that the number of disabled persons is increasing, that automation in industry will demand a reorientation to the problems of the sheltered workshop. The workshop of tomorrow should look like a contemporary factory, with special facilities as needed by the handicapped. It should be managed as efficiently as industry; in addition, it should offer psychological, medical, social, and vocational services to its clients. Wages should be on a par with those prevailing in competitive industry. Mr. Redkey believes the total operation of the sheltered workshop cannot be self-supporting; the community has a responsibility to furnish opportunities for persons with less than normal physical and mental ability. Close cooperation between public and voluntary organizations is necessary if services are to be made available for the disabled. Programs, policies, and institutions must be devised to offer increasingly effective rehabilitation.

65. Taylor, James B. *(Goodwill Industries of Tacoma, 2356 S. Tacoma Ave., Tacoma 3, Wash.)*

The mentally retarded in an intensive rehabilitation center. *J. Rehab.* Sept.-Oct., 1959. 25:5:10-13.

As psychological consultant to Goodwill Industries of Tacoma, the author describes referral procedures, screening of applicants, and the training offered by the Goodwill staff. It was found that, although most clients had been referred with a "diagnosis" of upper-level mental retardation, many could not be considered innately mentally retarded. Learning difficulties were found related to schizoid personalities; clients from isolated environments had little opportunity to learn social or vocational skills. The first step in vocational training is for clients to learn the responsibilities of an adult and to accept the role and duties of the worker.

SPECIAL EDUCATION

See 6; 7.

SPECIAL EDUCATION—YUGOSLAVIA

66. Taylor, Wallace W. *(New York State Univ. Coll. for Teachers, Albany, N.Y.)*

The education of physically handicapped children in

Yugoslavia, by Wallace W. and Isabelle Wagner Taylor. *Exceptional Children.* Nov., 1959. 26:3:126-132, 160.

The growth of special education in Yugoslavia since the time prior to World War II up to the present day is traced. The first special schools in this country were established in the 19th century for the blind and the deaf. No census of physically handicapped persons has been taken but some partial statistics are included here on persons in the various categories of physical handicaps. Special schools, their services, curricula, and vocational training available are covered, as well as teacher training and the role of government agencies in the provision of special education.

This is the fifth in a series of articles by the authors on special education provisions in various countries of Western Europe. For references to preceding articles, see *Rehab. Lit.*, July, Aug., Nov., and Dec., 1959, #594, 685, 865, and 943.

SPEECH CORRECTION

67. Low, Gordon *(Speech and Hearing Clinic, San Francisco State College, San Francisco, Calif.)*

Communication centered speech therapy, by Gordon Low, Mildred Crerar, and Leon Lassers. *J. Speech and Hear. Disorders.* Nov., 1959. 24:4:361-368.

A variety of teaching and therapy technics have been combined to form an approach to speech therapy that has been labeled "communication centered speech therapy." The daily communicative experiences of the child receiving speech therapy are analyzed and changed to provide more opportunity for success in communication. The speech therapy program is coordinated in every way possible with the speech development program of the home and school. Therapy is conducted as a group process in order to develop successful interpersonal relationships among children and to provide meaningful activities in which children may practice speech. The principles described here were evolved by the staff of the San Francisco State College Speech and Hearing Clinic.

68. Tufts, La Rene C. *(401 S. 31st St., Yakima, Wash.)*

Effectiveness of trained parents as speech therapists, by LaRene C. Tufts and Audrey R. Holliday. *J. Speech and Hear. Disorders.* Nov., 1959. 24:4:395-401.

Preschool children between the ages of 4 and 6 who had normal hearing, average intelligence, adequate functioning of the peripheral speech mechanism, and a functional articulation defect of moderate severity were chosen for study. Children were assigned in a random manner to one of three groups; the first group received no speech therapy, the second group received speech therapy from a trained therapist, and the third group were to receive speech therapy from the mothers, who were instructed by a trained therapist. Results showed there were no significant differences in the two groups receiving therapy from the trained therapist and the mothers. The study strongly suggests that training parents of children with moderate articulation problems is profitable when all aspects are considered.

See also 29.

SPORTS

69. Scruton, Joan *(Natl. Spinal Injuries Centre, Stoke Mandeville Hosp., Aylesbury, Bucks., England)*

The National and International 1959 Stoke Mandeville Games. *The Cord.* Summer/Autumn, 1959. 11:3 & 4:7-10, 12-19, 21-27.

An illustrated account of the annual sports competition for paraplegics held at the National Spinal Injuries Centre; a list of individual and team winners in the various events is included. The International Stoke Mandeville Games are scheduled to be held in Rome in 1960.

SURGERY (PLASTIC)

70. Berkeley, William T. *(823 Doctors Bldg., Charlotte 7, N.C.)*

The cleft-lip nose. *Plastic and Reconstructive Surg.* June, 1959. 23:6:567-575.

The author offers a composite of the technics best suited, in his experience, for improving the primary nasal repair of single cleft deformities. He believes that secondary revisions in the cleft-lip nose should be reduced since they never fully measure up both functionally and cosmetically. Repairs of the nose, lip, and palate are problems that are inter-related; an error of omission or commission in lip repair influences nasal and palate results. The technics are discussed in detail with illustrations of actual repairs.

TUBERCULOSIS—MEDICAL TREATMENT

71. Bosworth, David M. *(742 Park Ave., New York 21, N.Y.)*

Treatment of bone and joint tuberculosis in children. *J. Bone and Joint Surg.* Oct., 1959. 41-A:7:1255-1266.

A paper limited to a discussion of the treatment of destructive lesions of the osseous and articular systems. Dr. Bosworth points out the importance of factors that influence orthopedic treatment of children as compared with treatment of adults—namely growth potential and the capacity in children for spontaneous repair of tissues. Prevention of tuberculous lesions in children, the basic pathology of tuberculosis in this age group and variations occurring in the child with tuberculous osseous involvement as compared to adults are discussed. The order of modes of treatment has undergone a complete reversal. Medical treatment with iproniazid as the drug of choice comes first, with the addition of general measures such as nutrition, rest, splintage of parts, reduction of psychic activity and stress, and general physical care of the patient. Surgery is the last mode of treatment to be utilized, although it still has an invaluable place in the management of these lesions. Arthrodesis of the spine, when such a lesion has been definitely established, calls for prompt surgical fixation to prevent collapse. Another use of surgery is biopsy of suspicious lesions; the procedure should be carried out before the administration of iproniazid.

UROLOGY

72. Stolov, Walter C. *(Univ. of Minnesota Med. School, Minneapolis 14, Minn.)*

Rehabilitation of the bladder in injuries of the spinal

cord. *Arch. Phys. Med. and Rehab.* Nov., 1959. 40: 11:467-474.

Experience with 59 patients treated in the University of Minnesota Rehabilitation Service shows that the ultimate objective with such patients is to obtain as soon as possible a functioning catheter-free bladder; complications, however, often result in less than ideal medical and social results. The physiology of the normal bladder, problems encountered in paraplegic patients, and methods of treatment are discussed. Ischemic ulcer was the major cause of failure to attain a catheter-free status; vesical lithiasis was the most frequent urinary tract complication.

VOCATIONAL GUIDANCE—PERSONNEL

73. Warren, Sol L. *(375 Garden Blvd., Garden City, N.Y.)*

The rehabilitation counselor today; what, where, and why. *J. Rehab.* Sept.-Oct., 1959. 25:5:7-9, 13.

A survey of the principal types of jobs held by rehabilitation counselors with emphasis on newer and less common ones. In actual practice, the term rehabilitation counselor is used infrequently; jobs are designated by many and varied titles. The largest number of counselors are employed in state-federal vocational rehabilitation programs; the remainder are employed by a variety of federal, state, and local agencies and voluntary nonprofit organizations in the health, education, and welfare fields. Hospitals offer a promising field for future employment as rehabilitation programs expand. Responsibilities include duties as administrators, supervisors, consultants, liaison officers, teachers, and dispensers of casework services to handicapped clients. New concepts in rehabilitation and the expansion of services may call for entirely new definitions of the roles and responsibilities of counselors.

VOCATIONAL GUIDANCE—STUDY UNITS AND COURSES

74. San Francisco State College. Department of Special Education and Rehabilitation Counseling

Supervisor's handbook for the rehabilitation counselor fieldwork placement, prepared by Mildred I. Edmondson. San Francisco, San Francisco State College, 1959. 34 p. Mimeo. Looseleaf.

A manual prepared to aid agency supervisors of first and second-year graduate students engaged in field work as rehabilitation counselors. By informing supervisors of the purposes, principles, and goals of the graduate curriculum in rehabilitation counseling, the professional requirements and functional roles of such counselors, and the college's concept of the role of the supervisor in the public or private agency, the College hopes to provide criteria for evaluating current practices in fieldwork placement and the students' work. Guidelines for the administration of a fieldwork program for students are offered. Additional material includes a bibliography, requirements for the master's degree in rehabilitation counseling at San Francisco State College, criteria for the selection of agencies for fieldwork placements, and a listing of community agencies in the area that provide fieldwork opportunities for students.

Available from Dr. William M. Usdane, Coordinator, Dept. of Special Education and Rehabilitation Counseling, San Francisco State College, 1600 Holloway Ave., San Francisco 27, Calif.

WALKING—EQUIPMENT

75. Harbine, Patrick *(Northern Pacific Beneficial Assn. Hosp., Missoula, Montana)*

Crutches for a patient with severe upper extremity impairment, by Patrick Harbine, Nora Staael, and John A. Evert. *Arch. Phys. Med. and Rehab.* Nov., 1959. 40:11: 480-482.

Describes the design of a special crutch constructed for a patient with cervical cord injury; physical impairment of the shoulder girdles, upper extremities, and trunk (bilaterally) was severe, with lesser impairment of the lower extremities. Through adaptation of conventional axillary crutches, the pressure of weight bearing was centralized in the anterior deltoid region. Further adaptation stabilized the forearm, preventing lateral displacement of the arm and anterior displacement by means of a retaining strap at wrist level. Design of the crutches compensates for forearm rotation and poor grasp ability. Their use makes it possible for the patient to start gait training at an early stage in rehabilitation.

WORKMEN'S COMPENSATION—NEW YORK

76. Colaneri, Joseph E. *(45 Crawford Rd., Harrison, N.Y.)*

Workmen's compensation. *N.Y. State J. Med.* June 15, 1959. 59:12:2432-2434.

An explanation of the role of the Medical Department of the New York State Insurance Fund, its relationship to the Workmen's Compensation Board and to the medical profession. Dr. Colaneri discusses disability determination and the selection of cases for rehabilitation, the purpose of the Second Injury Law, and administrative units of the State Insurance Fund.

American Speech and Hearing Association Publishes Organ

IN SEPTEMBER, 1959, the first issue of *Asha,* official organ of the American Speech and Hearing Association (1001 Connecticut Ave., N.W., Washington 6, D.C.), was published. The first four numbers plus all the 1960 issues of this monthly may presently be ordered for $7.00, the regular annual subscription rate. Single copies are $.75. *Asha* will contain professional articles of general interest in the speech and hearing field in addition to official reports, records, and announcements. The editor is Kenneth O. Johnson, the Executive Secretary of the Association. The November, 1959, issue was devoted to abstracts of the technical papers presented at the 1959 convention.

New Section Issued for Self-Help Devices For Rehabilitation

REPORT NO. 11 has been published of *Self-Help Devices for Rehabilitation* (New York University-Bellevue Medical Center, Institute of Physical Medicine and Rehabilitation, 400 E. 34th St., New York 16, N.Y.). This issue is largely devoted to self-care activities of eating and dressing and to ideas to aid writing, typing, and reading. Included is a new patient and wheel chair car-lift, which can be self-operated by many. A new approach to functional hand splinting for the arthritic is shown.

Texas Housing Authority Builds 183-Apartment Building For Persons over 65

THE NOVEMBER, 1959, issue of *Journal of the American Medical Women's Association* carries "The Challenge of Housing for the Aged in San Antonio," by Dr. Normabelle H. Conroy. It states that last fall the San Antonio Housing Authority was completing a nine-story building with 183 apartments, all designed for persons over 65 years of age. Efficiency and one- and two-bedroom apartments were planned. Health and safety factors included: grab bars, nonskid floors, electrical equipment designed for those with impaired vision, showers with seats instead of bathtubs, low windows, wall plugs 36 inches off the floor, window guards, call bells, no thresholds, doors wide enough for wheel chairs, 8-foot wide galleries, soundproof ceilings, cross ventilation in each apartment, and all electrical equipment. The first floor will house a library, counseling rooms, a clinic, and space for recreation and crafts. A state university foundation will provide funds for a center coordinator for the first three years' operation.

Watch Modified to Measure Activity

A SEARCH FOR a practical method to objectively measure the effects of tranquilizing drugs upon hyperactivity has resulted in a modification of an Omega automatically winding calendar wrist watch. The following parts of the watch were removed: complete balance bridge, balance wheel, sweep second pinion and tension spring, sweep hand, third wheel, fourth wheel, escape wheel, main spring, pallet bridge, and pallet fork and arbor. The barrel was altered. Acceleration and deceleration are recorded as long as the movement has a significant component in the same plane as the face of the watch. The watch is sensitive to the vigor of the movements recorded. Duplicates of the instrument are available from the Lenna Jewelers, 1716 Sherman Ave., Evanston, Ill.—*From "An Objective Measure of Hyperactivity," by Jerome L. Schulman, M.D., and John M. Reisman, Ph.D.,* Am. J. Mental Deficiency, *November, 1959, p. 455-456.*

Results in Oregon County Stroke Rehabilitation Program Reported

THE MULTNOMAH (Ore.) County Medical Rehabilitation Demonstration Program has been conducted over the past year and one-half to determine what local resources can do for stroke patients. *The Oregon Health Bulletin* (Oregon State Board of Health, Portland) in its November, 1959, issue stated that, of 42 stroke patients at the county hospital, 6 died, 4 suffered brain damage that prevented participation in the program, and 2 recently admitted are still hospitalized, leaving 30 who received rehabilitation. Of the 30, 66 percent were restored to full activities of daily living, 17 partially were, and 17 percent were unsuccessful. After initial rehabilitation, 66 percent returned home, 10 percent went to a hotel or boarding house, and 24 percent to a nursing home. Various state and local agencies are cooperating in the program.

Hearing Conservation Program Conducted at Montefiore Home

A HEARING CONSERVATION program was conducted for the Montefiore Home of Cleveland Heights, Ohio, by the Department of Clinical Audiology, Cleveland Hearing and Speech Center, from February, 1958, through June, 1959. It is still in progress. The average age of the 147 residents seen was just over 77 years. Ninety-five women and 52 men were in the group. Thirty-two percent had normal hearing in one or both ears; 35 percent had "mild" losses (no more than 30 decibels of hearing loss in the better ear); only 5 percent could not cooperate well enough for hearing aids. Severe visual disabilities in 23 percent and a lack of motivation for therapy were complicating factors in rehabilitation. Prior to the program less than 7 percent had had direct experience with amplification, although 26 percent should have had aids. It was concluded that hearing loss appears to be a major but not universal problem in an aged, institutional population and that interdisciplinary cooperation is needed.—*From* The Montefiore Home Annual Report, 1958-1959, *The Montefiore Home, 3151 Mayfield Rd., Cleveland Heights 18, Ohio.*

Caniff Named Director Of National Conference Of Rehabilitation Centers

CHARLES E. CANIFF, former executive director of the Vanderburgh County Society for Crippled Children and Adults, Evansville, Ind., assumed this month the position of executive director of the Conference of Rehabilitation Centers and Facilities. The national office is to be located in Chicago. As executive director of The Rehabilitation Center, service facility of the Society, he saw the Center grow from a quonset hut on the campus of Evansville College to a $375,000 comprehensive outpatient facility. Mr. Caniff became the Society's first salaried executive in June, 1950. Caniff is a Marine veteran of World War II and was made a paraplegic from injuries received in a plane crash in 1945. He was named the Jaycee's "Most Outstanding Young Man of the Year" in 1948.

Successor to Mr. Caniff as executive director of the county society and the center is Spiro B. Mitsos, Ph.D., who served as consultant in psychology for the past year.

Telephone Useful In Speech Therapy

A SPECIAL KIND of telephone has been found useful in training speech-handicapped children. This Teletrainer was originally intended as an aid in teaching phone technics to normal children. A 25-foot cord connects two telephones to a central control box, which supplies a dial tone, busy signal, and the ringing. Children dial a number and talk while classmates listen. They listen to recordings made of their voices.

Watchmaking Schools to Close Because of Lack of Students

OPERATED AS a nonprofit organization since 1920, the Elgin Watchmakers College, Elgin, Ill., is to close down as of March, 1960. It has been training rehabilitation clients but has had a lack of students in recent years. Bradley University, Peoria, Ill., recently announced the closing of its watchmaking school for the same reason.

Northwestern University Medical School Launches Prosthetic Education Program

THE FIRST facility of its kind in the Midwest, a prosthetic education program has been launched by Northwestern University Medical School. The new school, operating on a training grant from the U.S. Office of Vocational Rehabilitation, is being organized under Dr. Clinton L. Compere, associate professor in orthopedic surgery at Northwestern. Courses offered will cover prescription, fabrication, and fitting of artificial limbs and braces and the rehabilitation of the orthopedically handicapped. During the academic year 21 courses lasting 1 to 3 weeks will be offered physicians, prosthetists, therapists, and rehabilitation counselors. The director is J. Warren Perry, Ph.D., assistant professor of neurology and psychiatry, Northwestern University. Herbert Blair is chief prosthetist and assistant director. Instructors and consultants will be drawn from the University, the Rehabilitation Institute of Chicago, the University of Illinois College of Medicine, the Stritch School of Medicine of Loyola University, and the Veterans Administration. The prosthetic industry will also furnish qualified instructors. The school is located in the Rehabilitation Institute of Chicago at 401 E. Ohio St.

Mrs. Hazel C. McIntire Retires From Ohio Special Education Post

ON SEPTEMBER 30, 1959, Mrs. Hazel C. McIntire retired as director of the Division of Special Education, Ohio Department of Education, after serving since 1923. Her photograph is prominently displayed in Syracuse University's "Hall of Fame" for pioneers and leaders in the field of special education.

International Rehabilitation Seminar Held This Month

A TWO-DAY seminar is being held in Washington, D.C., on January 28-29 for representatives of organizations interested in international programs for rehabilitation of the physically handicapped. The Office of Vocational Rehabilitation is host for the seminar, which is sponsored by the Committee on International Affairs of the National Rehabilitation Association and the United States Committee of the International Society for the Welfare of Cripples. The seminar, to be held in Room 5051, Department of Health, Education, and Welfare, will stress discussion of current developments in international rehabilitation and the exchange of information and is designed to provide a basis for future planning. Attendance at the seminar is limited to 100 persons and by invitation only.

NINDB Publication Reports Research Progress

A FIFTY-PAGE printed booklet, *Highlights of Progress in Research on Neurological and Sensory Disorders, 1958* (1959, *Public Health Serv. Publ. No. 700*), reports items of interest on program developments and research studies conducted and supported during 1958 by the National Institute of Neurological Diseases and Blindness. It is available from the Superintendent of Documents, U.S. Govt. Print. Off., Washington 25, D.C., for 25 cents.

U.S. Committee of ISWC Honors Mrs. Lawton

THE ANNUAL AWARD of the U.S. Committee of the International Society for the Welfare of Cripples for "outstanding achievement in the field of international rehabilitation for the physically handicapped" was presented to Mrs. Edith Buchwald Lawton. As director of Postgraduate Education for Paramedical Personnel, New York University-Bellevue Medical Center, and director of the international training program, Institute of Physical Medicine and Rehabilitation, she has contributed to the professional preparation of a large number of foreign students studying physical therapy and rehabilitation methods in the United States.

Reading Lists in Current Journals

LIBRARIANS and educators will be interested to note the following checklists of recommended books: The December, 1959, issue of *Industrial Medicine and Surgery*, p. 594-596, lists recent books and journals on occupational medicine, including selected titles on rehabilitation, disability evaluation, and compensation. The November, 1959, issue of *Hospital and Institution Book Guide*, received by members of the Association of Hospital and Institution Libraries of the American Library Association (50 E. Huron St., Chicago 11, Ill.), contains a bibliography of occupational and recreational therapy books published within the past two years; books on hobbies and recreational activities suitable for handicapped patients are listed.

National Health Survey Lists Health Characteristics Of Children and Youth

THE NATIONAL Health Survey classifies certain chronic or permanent defects as impairments, chiefly conditions that cause a decrease in or a loss of ability to perform certain functions. They include blindness, deafness, paralysis, and missing or deformed limbs. Per each 1,000 persons, impairments were more numerous in children aged 15 to 24 than in the younger children. The rates were 82.8 for the older group and 41.0 for the younger. Blindness and other serious visual defects accounted for about 8 percent of the impairments in both age groups and deafness and serious hearing trouble accounted for another 15 percent. Speech impairments were relatively more important in the younger age group, accounting for 26 percent of all impairments among those under 15 years of age as compared with 8 percent for those 15 to 24 years of age. Orthopedic impairments, including paralysis and amputations, were relatively more important in youths than in children. See table.—*From* U.S. National Health Survey: Children and Youth, Selected Health Characteristics, United States, July 1957-June 1958. *U.S. Department of Health, Education, and Welfare, Public Health Service, Division of Public Health Methods, 1959, pages 14-15.*

Type of impairment	Age 0-14	Age 15-24
All impairments	2,158,000	1,746,000
Visual	181,000	126,000
Hearing	316,000	267,000
Speech	567,000	147,000
Orthopedic		
Fingers and/or toes only	89,000	106,000
Arms	88,000	95,000
Legs	463,000	330,000
Arms and legs and/or back	144,000	496,000
Other	310,000	178,000

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